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Received January 22, 1917
Issued May 7, 1917

U. S. DEPARTMENT OF AGRICULTURE

WEATHER BUREAU

CHARLES F. MARVIN, Chief

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MONTHLY WEATHER REVIEW

SUPPLEMENT NO. 6

RELATIVE HUMIDITIES AND VAPOR PRESSURES OVER THE UNITED STATES, INCLUDING A DISCUSSION OF DATA FROM RECORDING HAIR HYGROMETERS

BY

PRESTON C. DAY

WASHINGTON
GOVERNMENT PRINTING OFFICE
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SUPPLEMENTS TO THE MONTHLY WEATHER REVIEW.

During the summer of 1913 the issue of the system of publications of the Department of Agriculture was changed and simplified so as to eliminate numerous independent series of Bureau bulletins. In accordance with this plan, among other changes, the series of quarto bulletins—lettered from A to Z—and the octavo bulletins—numbered from 1 to 44—formerly issued by the U. S. Weather Bureau have come to their close.

Contributions to meteorology such as would have formed bulletins are authorized to appear hereafter as Supplements to the MONTHLY WEATHER REVIEW. (Memorandum from the Office of the Assistant Secretary, May 18, 1914.)

These supplements comprise those more voluminous studies which appear to form permanent contributions to the science of meteorology and of weather forecasting, as well as important communications relating to the other activities of the U. S. Weather Bureau. They appear at irregular intervals as occasion may demand, and contain approximately 100 pages of text, charts, and other illustrations. Copies may be procured at the prices indicated below by addressing the Superintendent of Documents, Government Printing Office, Washington, D. C.

SUPPLEMENTS PUBLISHED.

No. 1. Types of storms of the United States and their average movements. By E. H. Bowie and R. H. Weightman. Washington, 1914. 37 p. 114 ch. 4°. Price 25 cents.

No. 2. I. Calendar of the leafing, etc., of the common trees of the Eastern United States. By G. N. Lamb. 19 p. 4 figs. II. Phenological dates, etc., recorded by T. Mikesell at Wauseon, Ohio. By J. Warren Smith. 73 p. 2 figs. Washington, 1915. 4°. Price 25 cents.

No. 3. (Aerology No. 1.) Sounding balloon ascensions at Fort Omaha, Nebr., May 8, 1915, etc. By W. R. Blair and others. 67 p. 23 figs. Washington, 1916. 4°. Price 25 cents.

No. 4. Types of anticyclones of the United States and their average movements. By E. H. Bowie and R. H. Weightman. Washington, 1917. 25 p. 7 figs. 73 ch. 4°. Price 25 cents.

No. 5. (Aerology No. 2.) Free-air data at Drexel Aerological Station: January, February, and March, 1916. By W. R. Blair and others. Washington, 1917. 59 p. 6 figs. 4°. Price 25 cents.

No. 6. Relative humidities and vapor pressures over the United States, including a discussion of data from recording hair hygrometers for a period of about 5 years. By P. C. Day. Washington, 1917. 6 p. 7 figs. 34 charts. 4°. Price 25 cents.

RELATIVE HUMIDITIES AND VAPOR PRESSURES OVER THE UNITED STATES, INCLUDING A DISCUSSION OF DATA FROM RECORDING HAIR HYGROMETERS FOR A PERIOD OF ABOUT FIVE YEARS.

By Preston Clairsville Day.

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INTRODUCTION.

The gaseous covering that envelops the earth is a composite of several substances, the more important of which are oxygen, nitrogen, vapor of water, and carbon dioxide, each comporting itself as though the others were not present. With the exception of oxygen, the vapor of water probably exerts a greater influence on organic and inorganic life than any of the other elements that go to make up the atmosphere.

This paper, with the accompanying tables, charts and diagrams, presents an opportunity for studying the various phases of the existence of water vapor in the atmosphere, its effects upon the climate of the country, and the resultant influences on animal and plant life, and commercial and other activities which are affected more or less by the amount of vapor usually present in the atmosphere and its seasonal and other variations.

SOURCE, AMOUNT, AND DISTRIBUTION OF WATER VAPOR IN THE ATMOSPHERE.

Evaporation from the great oceans, seas, lakes, rivers and the soil, including transpiration from vegetation, is the primary source of the water vapor in the atmosphere. The rapidity with which evaporation takes place depends principally on the wind and temperature, the rate being much greater in warm than in cold regions and in windy than in calm areas.

Since aqueous vapor is added to the atmosphere only from points immediately on the surface of the earth, it naturally results that the lower layers of the air contain the greatest absolute quantity of moisture.

The actual amount varies for different portions of the earth's surface and for different seasons of the year, and, to some extent, for the different portions of the day. It is greatest over the warmer portions of the earth, especially in the vicinity of large bodies of water, where it may reach as much as 5 per cent of the entire weight of the atmosphere. On the other hand, it is least over the colder portions, and the interior districts of large land masses, especially in the more arid regions of the earth, where it may form less than 1 per cent of the total weight of the atmosphere.

Entering the atmosphere in the lowest layers only, it is interesting to trace the processes of dispersion and diffusion of water vapor into the upper air. The motions of the air comprising winds and convection are chiefly responsible for the extensive distribution of moisture both in horizontal and vertical directions. The slow processes of diffusion also aid, and if the moisture once entering the air always remained there, the whole atmosphere of the earth ages ago would have become and remained saturated. That a different state actually exists is because water having once passed into the atmosphere is being continually returned to the ground by condensation and precipitation including all those manifestations of water we call rain, hail, snow, fog, dew, frost, etc. Water vapor, therefore, is carried into the free air only to undergo condensation and return to the earth again in some form of water.

The general result of this continual sequence of evaporation and precipitation prevents the atmosphere from becoming fully charged with moisture, and while definite observations and data are not available to justify exact statements, nevertheless it is pretty well known that the atmosphere as a whole contains scarcely one-half as much water vapor as might be present and by far the greater part of this is within less than 6 miles of the surface. It has been calculated that if all the atmospheric moisture above Europe were condensed it would form a layer of water about 25 mm. (0.98 inch) deep over that continent; the moisture above the eastern and southern United States would yield a layer of water less than 2 inches deep over those regions.

INFLUENCE OF WATER VAPOR ON CLIMATE.

The moisture in the atmosphere exerts a marked influence on climate, and the amount depends greatly on the temperature, as will be referred to later. Under all conditions it has a tendency to modify more or less the extremes of temperature, the particles of vapor partially intercepting the sun's rays, thereby becoming heated somewhat themselves and preventing the heat from reaching the earth's surface, hence lessening the heat of the day. In like manner at night, they interpose a barrier to the free radiation of heat from the earth, forming a warm blanket, as it were, and preventing the loss of heat into space and the consequent rapid cooling of the earth's surface.

The actual amount of water vapor in the atmosphere has little direct influence on animal or plant life, since it is the relation that exists between the amount actually present and the amount that could exist without condensation that determines whether the atmosphere is sensibly moist or dry, and this condition determines its chief climatic influence.

TERMS "ABSOLUTE" AND "RELATIVE" HUMIDITY.

The moisture in the atmosphere is usually referred to as humidity, and its amount may be expressed as absolute or relative.

Absolute humidity refers to the actual amount of moisture, expressed as vapor pressure, or as the actual weight of vapor in a given unit of space. Relative humidity refers to the relation that exists between the actual amount of moisture present in the atmosphere and the amount that could exist under the same conditions of temperature and pressure without condensation. This term, however, gives no indication of the actual amount of moisture in the atmosphere, as the capacity of the vapor of water to exist as such without condensation is almost wholly a function of the temperature.

Engineers sometimes compare the quantity of moisture in a given unit of the atmosphere to the quantity of dry air in the same unit; the expression "grains of water per pound of dry air," for example, being termed the absolute humidity. This practice, however, should be discouraged, because it gives to the term "absolute humidity" an additional meaning to the one commonly signified and leads to confusion.

As before stated, the absolute humidity is not so important a climatic factor as the relative amount of moisture in the atmosphere, since it is the latter that affects all organisms and determines whether the physical climate of a place is moist or dry. Thus at a temperature of 32°F. the largest amount of water vapor that can exist in the gaseous state in a cubic foot of space is 2.11 grains. This space would then be saturated, with a relative humidity of 100 per cent, and its physical condition would be described as damp. At a temperature of 51°, however, the space could contain 4.22 grains of water vapor, twice as much per unit space as at a temperature of 32°, and if this amount were present the relative humidity would continue at 100 per cent and its physical condition would still be the same as in the first instance. However, if a space is saturated at 32°F. and the temperature be raised to 51°F. without the addition of more moisture, and disregarding secondary effects from expansion, the capacity for water vapor would be doubled, its physical condition become moderately dry, and the relative humidity would be about 50 per cent, or one-half saturated.

The variation in the relative humidity of a place therefore depends not alone on the actual amount of water vapor present in the atmosphere but also and principally on its temperature.

MOIST AND DRY CLIMATES.

Climates recognized as "dry" are not necessarily deficient in actual moisture, since even in desert regions the amount of moisture in a given unit of space may equal or even exceed that in other districts commonly considered as moist. Thus at Yuma, Ariz., a place frequently referred to as one among the driest in the United States, there is, in July, as a rule, as much moisture in the atmosphere as at points on the Great Lakes, where the climate would ordinarily be referred to as moist. However, on account of the high temperatures at Yuma in the warm period of the year, the opportunity for water vapor to exist is greatly increased; as shown previously, the relative humidity becomes very low, the climate is considered dry, and any water exposed is quickly evaporated. On the other hand, in the lake region, the lower temperatures lessen the amount of vapor that can remain in the air and consequently it is more nearly saturated; there is less opportunity for evaporation and the climate is relatively moist.

MEASUREMENT OF ATMOSPHERIC MOISTURE.

The quantity of aqueous vapor in the atmosphere under various conditions of temperature and degrees of saturation may be measured in several ways. The most convenient of these and the one most frequently employed

makes use of two thermometers, of which the bulb of one is covered with a thin muslin saturated with clean water. This arrangement is commonly called the psychrometer, or wet- and dry-bulb thermometers. When mounted for whirling, they form the sling or whirled psychrometer. From the temperature differences shown by the readings of these thermometers, and the use of appropriate tables, the moisture content of the atmosphere can be readily determined.

The following extract from the text accompanying the psychrometric tables (W. B. No. 235), prepared by Prof. Charles F. Marvin, Chief of the Weather Bureau, for use in determining, from the wet- and dry-bulb temperatures, the dew-point, relative humidity and vapor pressure, indicates the method used by the Bureau in nearly all cases to determine the vapor content of the air.

The psychrometric formula.—The values of relative humidity and the temperatures of dew-points given in the accompanying tables, have been computed by means of the following formula, deduced by Prof. Ferrel. (Annual report of the Chief Signal Officer, 1886; appendix 24, pp. 235–259):

$$e = e' - 0.000367\ P\ (t - t')\left(1 + \frac{t' - 32}{1571}\right),$$

in which t and t' are the temperatures of the dry- and wet-bulb thermometers, P is the barometric pressure of the air in inches, all corrections having been applied, and e' is the maximum or saturation pressure of aqueous vapor at the temperature t' of the wet-bulb.

The solution of the equation gives e, the pressure of aqueous vapor corresponding to the observed temperatures t and t'.

The constants of the formula were deduced from a large series of experiments made by the writer (Prof. Marvin) at Colorado Springs, Colo., and at different elevations on Pikes Peak. These experiments were supplemented by similar observations made in Washington by Profs. Hazen and Marvin, and include a considerable number of experiments at temperatures below the freezing point by Prof. Hazen.

* * * * *

The formula and tables are, therefore, strictly applicable only to wet- and dry-bulb temperatures as determined by means of the sling or whirled psychrometer, or some equivalent form of apparatus, in which the wet-bulb especially is subject to a strong current of air, the velocity of which is not less than 15 feet per second.

The hair hygrograph also is sometimes employed in the measurement of atmospheric humidity. This instrument consists essentially of a self-recording mechanism and an eight-day clock movement inclosed within a brass cylinder, upon which is placed an engraved sheet, subdivided into days and hours, on which are recorded the variations in relative humidity. The cylinder revolves on its axle once in seven days, thus giving a continuous and automatic record for an entire week on a single sheet.

The movements of the recording pen are controlled by a strand of specially prepared hairs, the length of which increases or decreases with increasing or decreasing moisture, respectively. Motions caused by variations in the length of the hairs are communicated by a special leverage arrangement to the recording pen, causing it to rise or fall as the case may be. The record sheet is engraved to represent a scale of 0 to 100 per cent of relative humidity, that is from "absolute dryness" to "complete saturation." Unfortunately no automatic recording instrument has thus far been devised that affords an entirely trustworthy humidity record, and consequently readings obtained from the hygrograph must be checked at rather frequent intervals against determinations made with the sling psychrometer or other standard and necessary corrections applied to the former.

STATISTICAL DATA AVAILABLE.

The tables, charts, and diagrams presented in the following pages give in great detail and in varied ways the relative humidity and vapor pressure over the United States and their relations to temperature and other conditions. An extended discussion of the same appears unnecessary, but it is thought proper to point out a few special features not readily apparent from the data.

Series of observations at 8 a. m. and 8 p. m., 75th meridian time.

The most important humidity observations made by the Weather Bureau are embraced in the 8 a. m. and 8 p. m., 75th meridian time, series which covers the period since July, 1888. (See Table 1.) The observations during this period, while confined to a twice-daily series only, have been made under the most approved conditions as to exposure of instruments and the manner of securing their indications, while use has been made of the latest tables for finally determining the moisture content of the atmosphere. Data for this series for about the 25-year period, January, 1889, to December, 1913, inclusive, for nearly 200 stations appear in Table 1; and the values are also graphically shown for the months of January, April, July, and October on Charts 1 to 8, inclusive.

The hours at which these observations were made are not such as to represent either the daily means or extremes, but corrections for reducing the mean values at these hours to a true daily mean, based on continuous hygrographic records covering the period indicated for the respective stations, have been computed for a number of selected points. These corrections are given in Table 5. It will be noted that in all cases the means for the 8 a. m. observations are considerably higher than the 24-hour means, while those for 8 p. m. are appreciably lower, the variations from the daily means at both observations becoming increasingly greater with progress westward, due to the earlier local time, the values in both cases approaching nearer the extremes for the day. This is specially notable west of the Rocky Mountains where the 8 a. m. means (75th meridian time) are much higher than the true daily means and the 8 p. m. values much lower, but these departures nearly offset each other and the average of the two observations represents very nearly the 24-hour mean. The stations of Table 5 are unfortunately distributed, however, most of them being located well toward the northern part of the country; but the uniformity of the corrections indicate the probability that they fairly represent southern as well as northern districts.

Series of observations at 7 a. m., 11 a. m., 3 p. m., 7 p. m., and 11 p. m., Washington time.

Data for the hours 8 a. m. and 8 p. m. give no intimation as to the daily march of the relative humidity, or the variations from hour to hour, which is one of the most important questions in a study of atmospheric moisture. For a period of about five years, 1881 to 1886, five daily observations of relative humidity were made at the then regular observing stations of the Bureau, at that time under the Signal Service of the War Department. These observations were made at 7 a. m., 11 a. m., 3 p. m., 7 p. m., and 11 p. m., Washington time (8 minutes earlier than 75th meridian time). The mean values for this series of observations are given in Table 2, which also indicates the corresponding local time at which the respective observations were made. The means are graphically shown for the hours 3 and 11 p. m. for the mid-winter, mid-spring, mid-summer, and mid-autumn months on charts 9 to 16. Table 2 is an important table as it shows the variations for each 4 hours during 16 hours of the day. The length of the period, however, is only 5 years and the method of securing the data was somewhat less accurate than that followed in the 8 a. m. and 8 p. m. (75th meridian time) series.

Series of observations at 2 p. m., local time.

During the period of about five years, from 1876 to 1880—just previous to the series of observations just discussed—another series was made at 2 p. m., *local time.* The values for this period are given in Table 3, and are also shown for each of the mid-season months on charts 17 to 20. These data represent the only extensive relative humidity observations made at the same hour of *local time* at all stations, and while the number of stations is somewhat less than for the other series given, they are sufficiently representative to give a fair idea of the condition at that hour.

In considering the data for the several series it should be borne in mind that the means of the last two are for different years and for comparatively short periods, five years each, and also that the psychrometric tables employed have been revised, as well as the manner of observing the instruments, all of which are conducive to results not strictly comparable with data for the longer and more recent period, at 8 a. m. and 8 p. m.

DIURNAL CHANGES IN RELATIVE HUMIDITY.

The characteristic features of the daily march of the relative humidity are much more striking than are those of the absolute humidity, and we find no such constancy of hourly values as in the latter. The variations in temperature from day to night, or from one extreme to the other, being relatively great, cause a similar, but an inverse, change in relative humidity as indicated by figures 4 and 5. These changes from hour to hour follow closely the variations in temperature, by which they are chiefly determined. For each change in temperature there is a corresponding definite change in the relative humidity, but oppositely directed, with the ratio more or less constantly maintained throughout the day's cycle. The relative humidity, R, is given by the equation

$$R = p_1 / p_2$$

in which p_1 is the actual vapor pressure and p_2 is the saturation vapor pressure at the air temperature. These quantities are wholly independent variables; p_2 is entirely dependent on the air temperature, but p_1, while influenced chiefly by local evaporation, wind movement, convection, barometric pressure, etc., is only remotely and indirectly affected by temperature. Any study of changes of relative humidity with respect to changes of temperature must recognize the possible independent variation of p_1 and p_2, also that while an increase in p_1 will cause an increase in R, the humidity will decrease for an increase in air temperature, which entails an increase in p_2. Now, since automatic and other records indicate that in a general way the daily fluctuations of vapor pressure are quite similar in character to the daily march of temperature, it follows that the changes in p_1 tend to offset the changes in p_2. In general, however, the latter greatly predominate.

If ΔR represents a change in relative humidity depending on a simultaneous change, Δp_1 in the vapor pressure and in the temperature Δt, then it is easy to deduce the equation of relation

$$\Delta R = R\frac{\Delta p_1}{p_2} - \frac{28082\,R}{T_2^{2.2808}}\Delta t,$$

where T_2 is the absolute temperature (cent.) or

$$T_2 = 273.0 + t_2.$$

Stating the results in Fahrenheit terms, the values of ΔR are given for a few points between 32° and 100° in the following equation:

$$\Delta R = \left\{\frac{\Delta p_1}{p_2} - \begin{vmatrix} 0.040 \text{ at } 32° \\ 0.037 \text{ `` } 50° \\ 0.034 \text{ `` } 68° \\ 0.032 \text{ `` } 86° \\ 0.030 \text{ ``}104° \end{vmatrix}\right\} R\Delta t.$$

These results tell us that at a temperature of, say 68°, a rise of 1 degree in temperature will cause a drop in relative humidity of 3.4 per cent of itself, provided no change occurs in the vapor pressure. If, however, the vapor pressure rises at the same time, as generally tends to be the case, then the change will be reduced by the same percentage amount as the percentage change in the vapor pressure, which is shown by the expression $\Delta p_1/p_2$. The average diurnal variations in vapor pressure expressed as ratios with respect to the mean of the 8 a. m. and 8 p. m. (75th meridian time) values are given in Table 4 for stations at which bihourly values have been obtained. These data indicate directly the variations throughout the day.

The interesting question as to the relation between temperature and relative humidity variations has been given

rather extended examination by the aid of data obtained from several combinations of observations distributed through the day. The results are in close accord with each other and the mathematical theory stated above, and show incidentally that the methods employed by the Weather Bureau in determining the moisture in the atmosphere and the care of observers in recording and computing the data have produced very consistent results.

In addition to the available continuous hygrographic records utilized in the preparation of figures 4 and 5 the difference in relative humidity changes corresponding to a change of 1 degree in temperature from the 8 a. m. to the 8 p m. observations at the regular observing stations of the Weather Bureau were computed. Similar changes for a five-year period from observations taken at 7 a. m., 3 p. m., and 11 p. m. (75th meridian time) were also computed from data given in Table 2. In this case the changes were computed separately for the periods 7 a. m. to 3 p. m., and 3 p. m. to 11 p. m. The results of these computations show that, for the temperature and moisture conditions usually experienced, while the ratios vary slightly for different localities, the relative humidity changes are very generally from about 1.5 to a little more than 2 per cent for each change of 1 degree in temperature. With this information at hand and a knowledge of the average temperature and humidity for any given hour of the day, it is possible to approximate the average relative humidity for any other hour, provided the average temperature for the hour is known.

Daily extremes of relative humidity.

In connection with a study of the diurnal variations in relative humidity, the question of daily extremes becomes of considerable importance, specially the minimum which occurs at about the time of maximum temperature, but this time varies for different localities and different seasons of the year.

No direct observations showing the daily minimum relative humidity are available, except for the few stations where continuous hygrographic records have recently been made. The data constituting the nearest approach to the minimum values are found in the 5-year means at 2 p. m., local time, and in the means for the succeeding 5-year period when observations were taken at 3 p. m. Washington time, both of which have been previously referred to; but, as before stated, they were made under circumstances that render them not strictly comparable with subsequent observations, while at the same time the hours at which the observations were made by no means always conformed to the time of daily maximum temperature.

It is possible, however, when data for a long period of time are available, to compute the average daily minimum relative humidity quite accurately by any of several methods.

First method.—This may be accomplished by applying the change in relative humidity corresponding to a change of 1 degree in temperature to the difference between the average temperature at 8 a. m. (75th meridian time) and the average daily maximum temperature and subtracting the product from the average known relative humidity at 8 a. m. The values for 8 p. m., or for any other known hour, may be similarly employed. To illustrate: At Dodge City, Kans., for April, the change in relative humidity corresponding to a change of 1 degree in temperature from 8 a. m. to 8 p. m., 75th meridian time, is 1.7 per cent, from data in Tables 1 and 8. By applying this ratio to the difference in the mean temperature at 8 a. m. and the mean maximum temperature given in Table 7, which corresponds to the time of minimum relative humidity, we find the latter value to be approximately 34 per cent. In like manner the relative humidity for any other hour of the day for which the mean temperature is known may be approximately determined.

Second method.—By dividing the mean 8 p. m. vapor pressure by the saturation pressure corresponding to the maximum temperature. This is made possible by the fact that the mean vapor pressure appears to vary only slightly, as a rule, from hour to hour during the day and the 8 p. m. values approximate those occurring at the time of maximum temperature.

To determine accurately the daily minimum relative humidity, we need to know the maximum temperature and the actual vapor pressure at the time of its occurrence. Unfortunately we have no instrument that will give a satisfactory automatic and continuous record of vapor pressure. Consequently where entirely trustworthy indications are required it is necessary to take actual observations by means of the whirled psychrometer. Such records, to be of material value in determining the conditions at any hour or for any series of hours, must be continued over long periods and at an expenditure of a great amount of time. For these reasons little comparative data, save the 8 a. m. and 8 p. m. series, are now available.

In computing the average minimum relative humidity by using the 8 p. m. vapor pressure and the saturation pressure at the time of maximum temperature, the results for the colder months of the year, in which there are large fluctuations of temperature from day to day, are not as satisfactory as for the seasons with comparatively uniform temperatures. This is due to the fact that the variations in the saturation pressure for different temperature conditions are much greater than the differences in temperatures themselves, and consequently the saturation pressure corresponding to the mean maximum temperature, when the latter is made up from daily values having wide variations, does not afford a trustworthy factor for determining the average daily minimum relative humidity. The saturation pressure for a given temperature, within the ordinary range, is approximately only one-half as great as for a temperature 20 degrees higher.

The average daily minimum relative humidities for the regular observing stations of the Bureau have been computed by this latter method for the months of April, July, and October, the results being given in Table 7, and graphically shown on charts 21 to 23. Table 7 also shows the mean maximum temperature and the corresponding computed depression of the wet-bulb, the latter values appearing in graphic form for the different sections of the country on charts 24 to 26. The depression of the wet-bulb temperature gives some indication as to the degree of physical discomfort experienced during the prevalence of high temperatures, which is generally assumed as varying inversely with the depression of the wet-bulb.

In Table 4 are given data showing for a number of stations equipped with hygrographs, bihourly relative humidity values. There have been computed from these data bihourly corrections to be applied to the mean of the 8 a. m. and 8 p. m. (75th meridian time) humidity readings to obtain the average values for the several even hours of the day. These corrections are given in Table 6, and are valuable in determining the daily march of relative humidity at other points from data given in Table 1.

ANNUAL MARCH OF THE RELATIVE HUMIDITY.

The distribution of the relative humidity over the United States depends on various modifying influences, such as temperature, proximity to the main moisture supply, the prevailing wind direction, the topographic conditions, elevation, etc.

Figures 1 to 3 show in addition to the curves of vapor pressure for selected stations, arranged in order of the several time zones in the United States, the annual march of the 25-year average relative humidity for the observing hours at 8 a. m. and 8 p. m. (75th meridian time), the local standard time at which the observations were made being indicated in each case. Table 1 shows the monthly data for each of the regular observing stations at 8 a. m. and 8 p. m. (75th meridian time) while the tables following show the means for other hours of the day at which observations have been made. The mean values are also graphically shown for the months of January, April, July, and October on charts 1 to 23.

SEASONAL VARIATIONS OF RELATIVE HUMIDITY.

While the variations of relative humidity differ for the several seasons according to localities to such an extent as to preclude a statement of any general law, it may be said that east of the Rocky Mountains the early Spring, April, as a rule, is the period of lowest relative humidity of the year, while west of the Rockies, the lowest humidities are experienced during the mid-summer months. The season of highest relative humidity occurs, as a rule, during the colder months of the year, except in the Southeastern States where the maxima frequently occur in the late Summer or early Fall.

Extremes of relative humidity.

For the country as a whole the lowest values of relative humidity are found, as a rule, at all seasons of the year, in the far Southwest, while the regions of the greatest apparent moisture are those near the ocean and Gulf coasts and in the region of the Great Lakes, specially on the leeward sides. Generally speaking, elevated mountain regions have comparatively high percentages of relative humidity throughout the year, specially on the windward sides. The influence of elevation is shown in Table 2 by the values given for Mount Washington, N. H., elevation about 6,000 feet, and for Pikes Peak, Colo., elevation about 14,000 feet. In each of these cases the percentages are continuously high with small monthly and diurnal variations. However, on the leeward side of mountains, even at high elevations, we find comparatively low humidities, due to loss of moisture from the air in passing over the mountains and the decrease in humidity due to the adiabatic warming of the descending air on the leeward side. These conditions are exemplified in the eastern portions of Wyoming and Colorado, as will be seen by referring to charts 1 and 2 showing the relative humidity for the winter season, and they are likewise shown in a less well defined manner for the region just east of the Appalachians.

Occasionally, very low relative humidities are observed in all portions of the country. In the western half of the United States readings as low as 2 to 10 per cent are of record in all districts except along the immediate Pacific coast; while for the eastern half the lowest of record range generally from 10 to 20 per cent.

ABSOLUTE HUMIDITY.

Vapor pressure is ordinarily the fundamental datum employed to express water vapor in the air. This is the quantity obtained directly from readings of the wet- and dry-bulb thermometers. When chemical methods are employed for the determination of atmospheric moisture the results are frequently obtained in units of weight, but this method is difficult to employ even in the laboratory. Atmospheric moisture plays an important part in many engineering and industrial operations, and here also values of vapor pressure meet the needs better and more directly than do, for example, the values of the dew-point and the relative humidity, which are more commonly used in meteorology. These considerations justify the presentation of vapor pressure values with some fullness.

Diurnal march of the vapor pressure.

Table 4 contains bihourly monthly mean data deduced from records at certain stations at which self-recording hair hygrometers have been maintained for a period of about five years. The entries give for each station the relative humidity, the vapor pressure, the temperature, and finally the ratio or percentage obtained by dividing the vapor pressure for any given hour by the mean of the

8 a. m. and the 8 p. m. (75th meridian time) vapor pressure for the same month.

Figures 4 and 5 show the diurnal march of humidity, temperature, and actual vapor pressure. Owing to the relatively small scale used in depicting the vapor pressure, and specially to its great annual range, the significant features of the diurnal changes in this important datum are quite obscured in the diagrams mentioned.

To overcome this difficulty and cause the significant features to stand out in relief, the "vapor pressure ratios" have been computed. This artifice of computation gives equal weight and significance to all vapor pressure data. The small vapor pressures of the cold seasons or of the arid regions, and their fluctuations, can be directly and fairly compared, by means of the ratio, with the large values and large fluctuations in vapor pressure during the warm seasons and for humid climates.

Figure 6 shows graphically the characteristic diurnal march of vapor pressure for three representative stations: San Francisco, Cal., which represents the marine type of climate with small diurnal and annual fluctuations; Boise, Idaho, representing the semiarid type of climate with extreme ranges of humidity and temperature, both daily and annual; and Columbus, Ohio, the characteristic average humid climate.

The 8 a. m. and 8 p. m. vapor pressures by months for all stations of the service, arranged by geographic districts, are given in Table 8. The vapor pressure at any other hour of the day can be approximately deduced from these values by multiplying the mean by the appropriate vapor pressure ratio given in Table 4 for that hour and for one of the stations in the same geographic district or approximately representing the same geographic conditions.

The diurnal fluctuations in the actual moisture content of the atmosphere are largely brought about by the varying rate, from day to night, of evaporation from water and land surfaces, transpiration from the leaves of plants, and condensation in the form of rain, snow, dew, etc. These processes of atmospheric moisture changes are constantly operative in some form and degree, but evaporation as a rule is more active during the warmer parts of the day, at which time the addition of moisture to the air layers near the surface is usually greater than the loss by condensation, convection, etc. During the nighttime the loss by condensation, usually exhibited in a deposit of dew, frost, or otherwise, is somewhat greater than the gain from evaporation, resulting to some extent in a mean diurnal variation as indicated above.

Annual march of vapor pressure.

The actual amount of moisture present in the atmosphere, as shown by the vapor pressure, while varying for different sections of the country, has a well-defined annual range, following closely in all localities the trend of the annual temperature curve, the minimum occurring in the winter season and the maximum during the warm months of the year. The variations from winter to summer are well pronounced in most localities, there usually being in the latter season from two to four times as much actual moisture in the atmosphere as in the former. Table 8 shows for the regular observing stations of the Bureau the mean vapor pressure and mean temperature at the regular hours of observations, 8 a. m. and 8 p. m. (75th meridian time) for the several months of the year—generally based on the records for the 20 years, 1895 to 1914—while the heavy dot lines in figures 1 to 3 show the average 8 a. m. (75th meridian time) annual march for selected stations well distributed over the country. The average values at 8 a. m. and 8 p. m. (75th meridian time) for the months of January, April, July, and October are shown graphically on charts 27 to 34, which also show the corresponding temperatures.

In the winter season the geographic distribution of the absolute moisture content of the air follows closely that of the temperature, as indicated by charts 27 and 28, the minimum appearing in the North Central States between the regions of the Great Lakes and the Rocky Mountains, the coldest portions of the country, and the maximum along the Gulf coast, with a secondary maximum along the Pacific coast. For the summer season the region of maximum moisture is again found in the Gulf States, with a uniform decrease to the northward, but the minimum has shifted from the northern Plains States to the central plateau districts of the West, the distribution being shown on charts 31 and 32. The vapor pressure values on all charts are expressed in inches of the mercurial barometer.

Non-periodic fluctuations in absolute humidity.

While the actual amount of moisture in the atmosphere at a given point from year to year is fairly uniform for the same period of the year, it is nevertheless subject to occasional marked changes over extensive regions, due to changes in the prevailing direction of the winds induced by abnormal changes in barometric pressure or otherwise. A notable case in point occurred in February, 1895, over the Southeastern States where, for the month as a whole, the moisture content of the atmosphere was greatly diminished by reason of persistent dry northwesterly winds that resulted from the passage of an unusually large number of low pressure areas near the coast. During an entire week of that month the vapor pressures at points along the South Atlantic coast averaged less than one-third the normal for the period of the year.

SATURATION DEFICIT.

The difference between the actual vapor pressure and the saturation pressure, or the amount of aqueous vapor pressure necessary to cause saturation under existing temperature conditions, is termed the "saturation deficit." The diurnal variations of this measure are shown for a number of selected stations for the winter and summer months by the vertical distances between

the broken lines in figures 4 and 5, the lower line in each case showing the actual vapor pressure and the upper one the saturation pressure for the temperature indicated by the temperature curve.

Some students of atmospheric moisture have recently claimed that the saturation deficit affords a better measure for indicating moisture conditions than does the relative humidity, especially as affecting plant growth. This opinion is based on the fact that the saturation deficit undergoes greater variations for given temperature changes during warm weather than does the relative humidity, and thus more nearly indicates the stress to which plants are subjected. The vapor pressure at saturation, at a temperature of 32°F., is 0.180 inch, and for each rise of approximately 20 degrees in temperature it doubles, or increases about 100 per cent. Thus at a temperature of 52°F. the vapor pressure at saturation is 0.387 inch, and for a temperature of 72° the saturation pressure is 0.783 inch. It will thus be seen that a daily range of 20 degrees in temperature, a range of common occurrence, causes a range of approximately 100 per cent in the saturation deficit which corresponds to the maximum possible variation in relative humidity.

Considered abstractly, there is little doubt that as an index of atmospheric moisture conditions, the relative humidity is to be preferred to the saturation deficit. There are two possible well-defined extreme conditions as to atmospheric moisture, saturation and the entire absence of water vapor. The gradations between these conditions are clearly defined by stating the relative amount or percentage of humidity present, i. e., by the "relative humidity." Thus, the statement that the relative humidity is 50 per cent shows at once that only one-half as much moisture is present as would be necessary to produce saturation under the existing air temperature; the statement affords a direct and comprehensive indication as to existing conditions.

ACKNOWLEDGMENTS.

Much of the section on diurnal changes in relative humidity, and also the discussion of the diurnal march of the vapor pressure by means of "vapor pressure ratios," is due to Prof. Charles F. Marvin, Chief of Bureau; and much assistance has been rendered by Mr. Joseph B. Kincer in the preparation of all portions of the paper.

FIGURES 1, 2, AND 3.

The diagrams in figures 1 to 3 show the average relative humidity and vapor pressure for each month of the year at the hours indicated, local standard time, for the respective points. Curves of a.m. vapor pressure are dotted and of relative humidity solid or broken. Only the a.m. vapor pressure is shown, as the p.m. values differ but little therefrom. Stations are grouped according to the several zones of standard time.

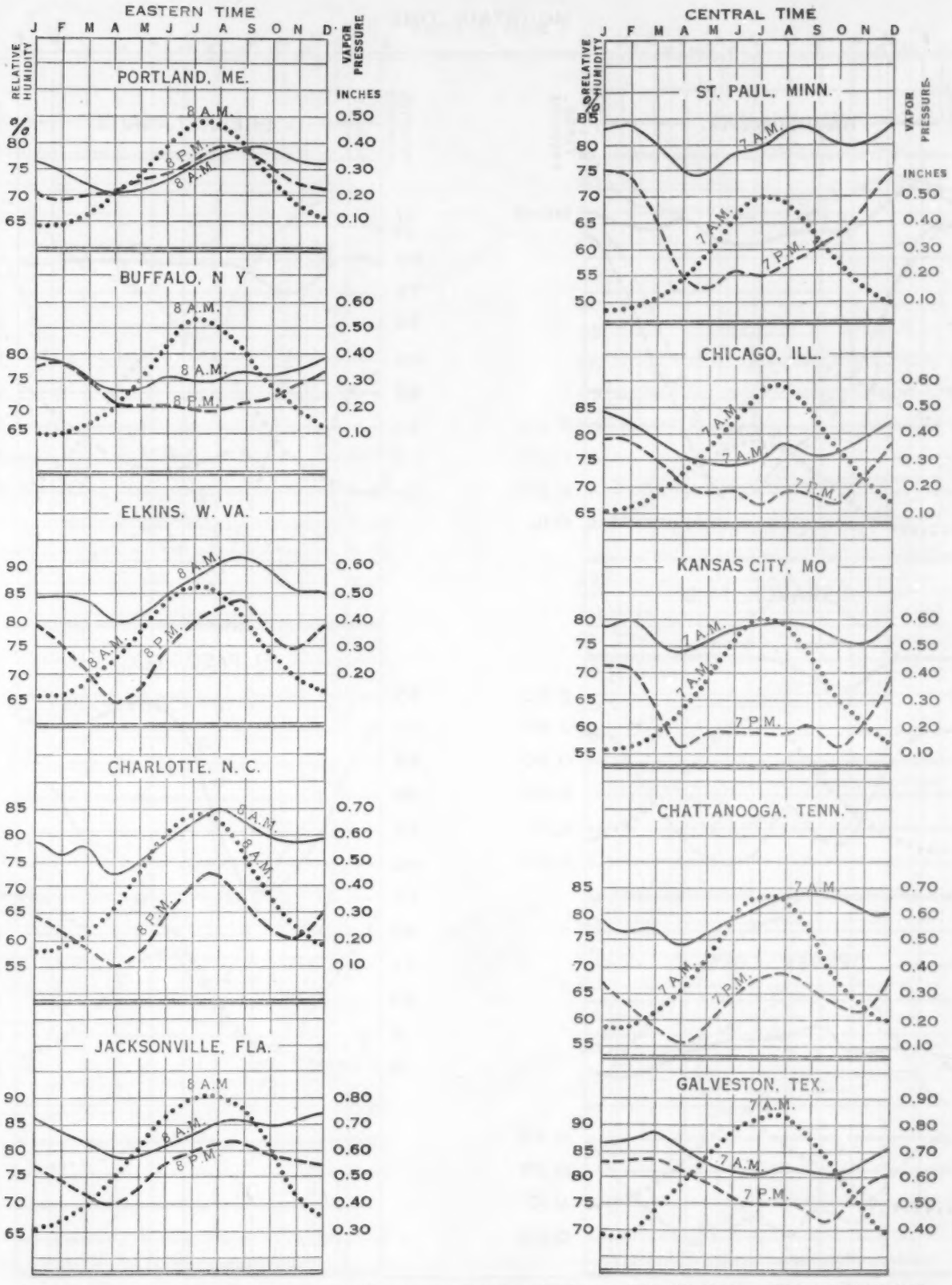


FIG. 1.—Annual march of relative humidity (per cent) and vapor pressure (inches), at selected stations in the United States. (Data from Tables 1 and 8.)

.... Vapor pressure.

— — — } Relative humidity.

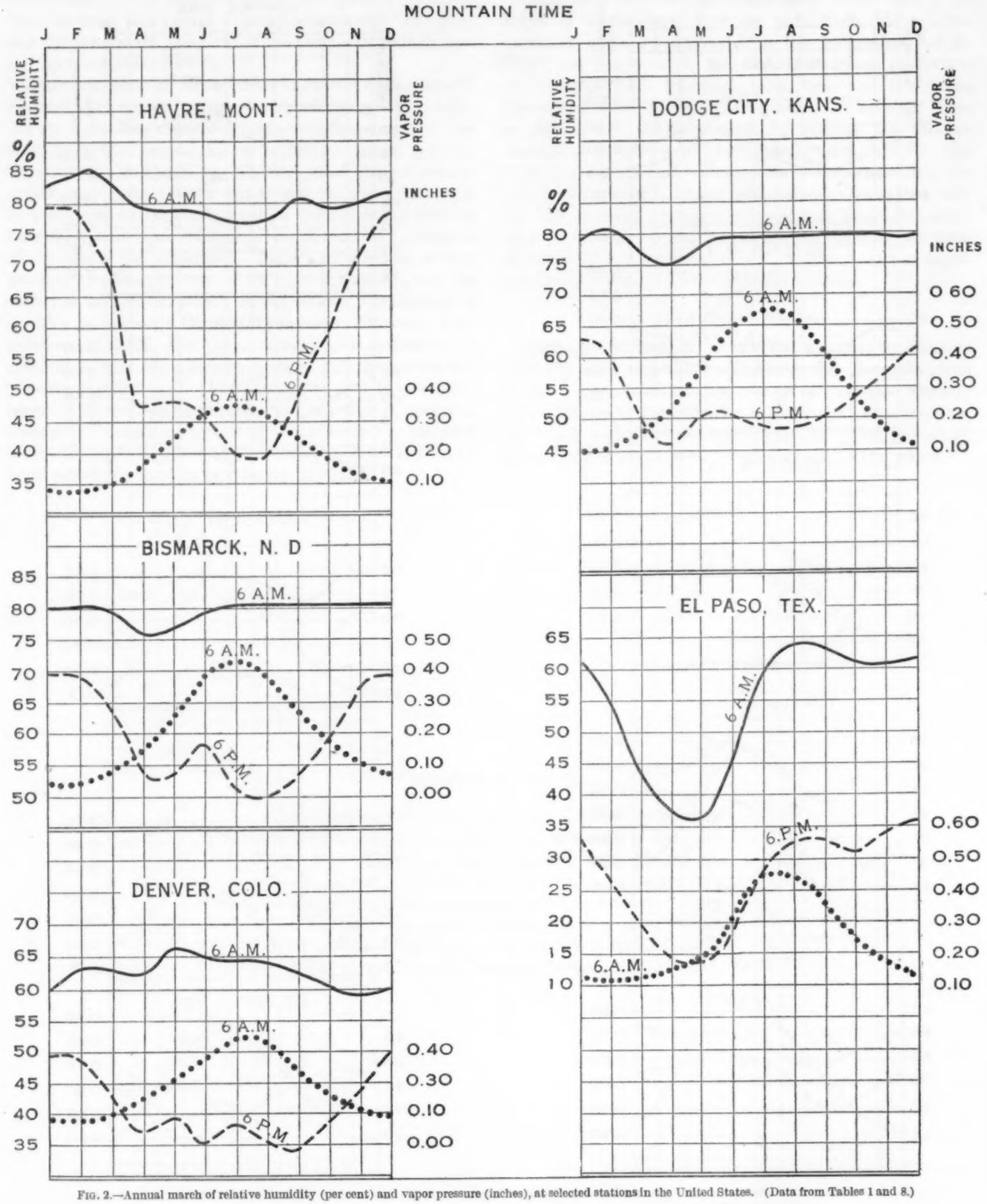


FIG. 2.—Annual march of relative humidity (per cent) and vapor pressure (inches), at selected stations in the United States. (Data from Tables 1 and 8.)

..... Vapor pressure.

— — — } Relative humidity.

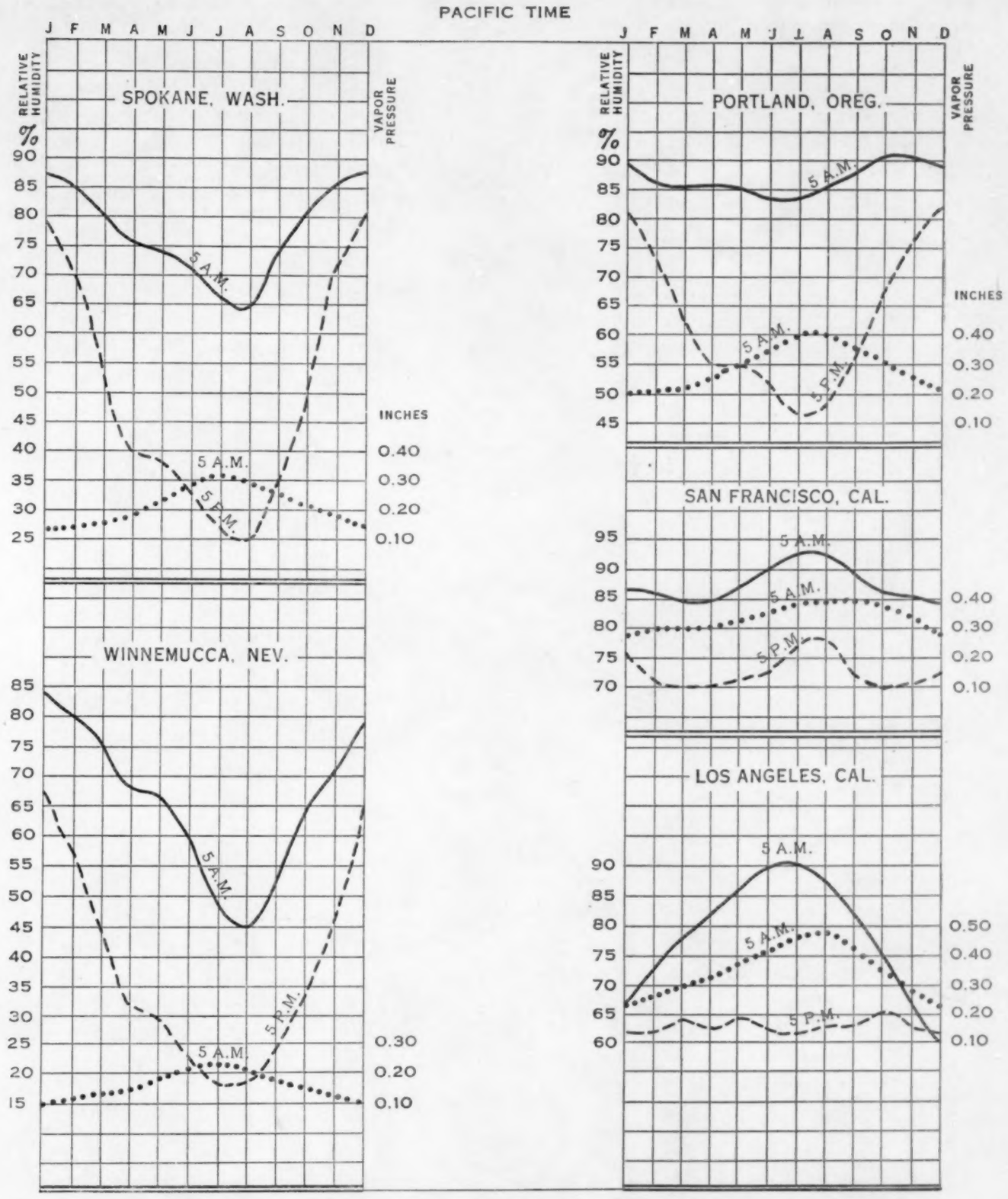


FIG. 3.—Annual march of relative humidity (per cent) and vapor pressure (inches), at selected stations in the United States. (Data from Tables 1 and 8.)

..... Vapor pressure.

— — — } Relative humidity.

Figures 4 and 5 show the daily march of relative humidity, vapor pressure, and temperature, and also the vapor pressure at saturation, for the winter and the summer months, respectively, compiled at the even hours from the records of self-recording instruments at the stations named. (Local standard time.)

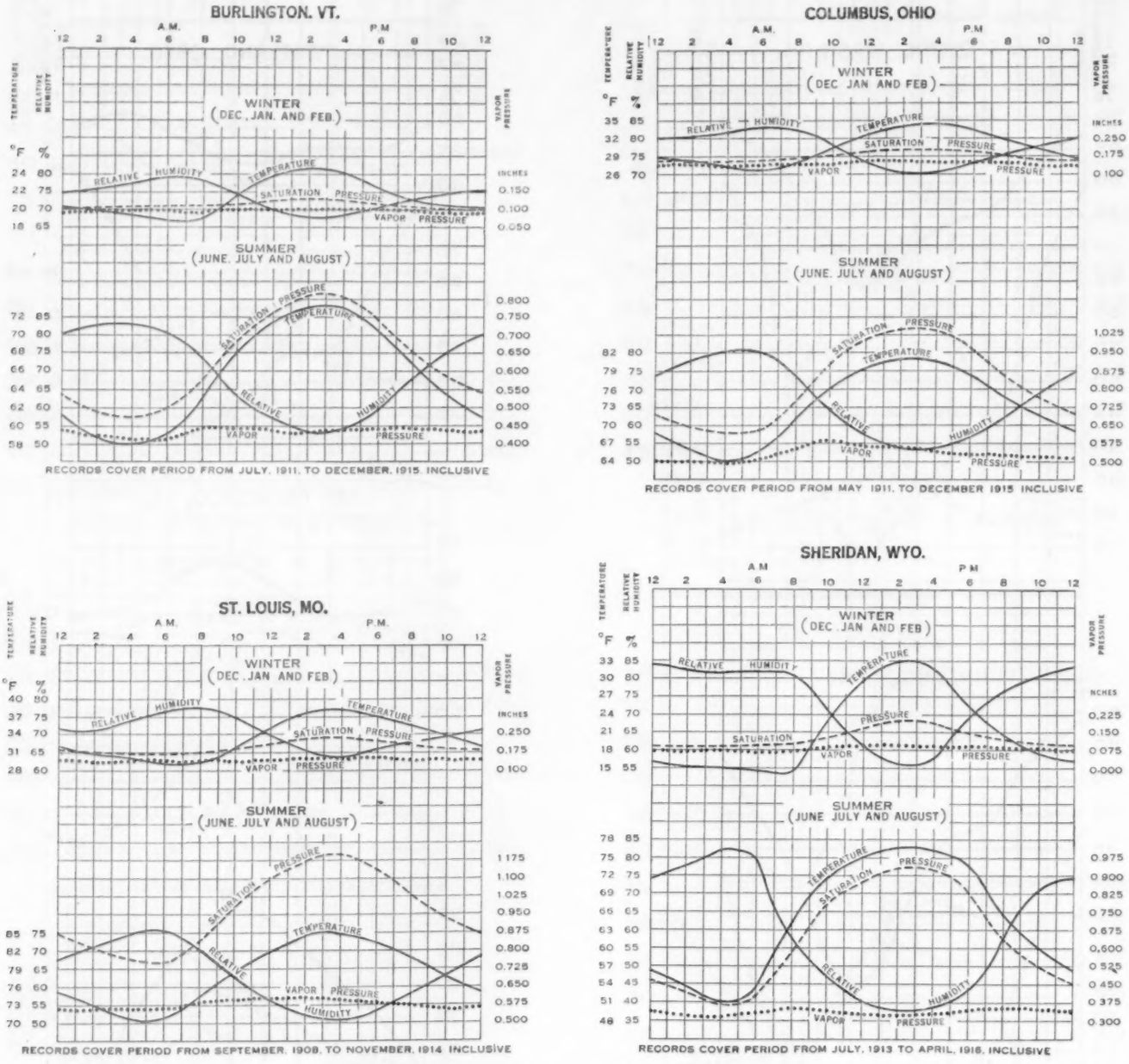

BURLINGTON, VT.
WINTER (DEC., JAN. AND FEB.)
SUMMER (JUNE, JULY AND AUGUST)
RECORDS COVER PERIOD FROM JULY, 1911, TO DECEMBER, 1915, INCLUSIVE
COLUMBUS, OHIO
WINTER (DEC. JAN AND FEB)
SUMMER (JUNE, JULY AND AUGUST)
RECORDS COVER PERIOD FROM MAY 1911, TO DECEMBER 1915 INCLUSIVE
ST. LOUIS, MO.
WINTER (DEC. JAN AND FEB)
SUMMER (JUNE, JULY AND AUGUST)
RECORDS COVER PERIOD FROM SEPTEMBER, 1908, TO NOVEMBER, 1914 INCLUSIVE
SHERIDAN, WYO.
WINTER (DEC. JAN AND FEB)
SUMMER (JUNE JULY AND AUGUST)
RECORDS COVER PERIOD FROM JULY, 1913 TO APRIL, 1916, INCLUSIVE

FIG. 4.—Diurnal march of relative humidity, vapor pressure, and temperature.

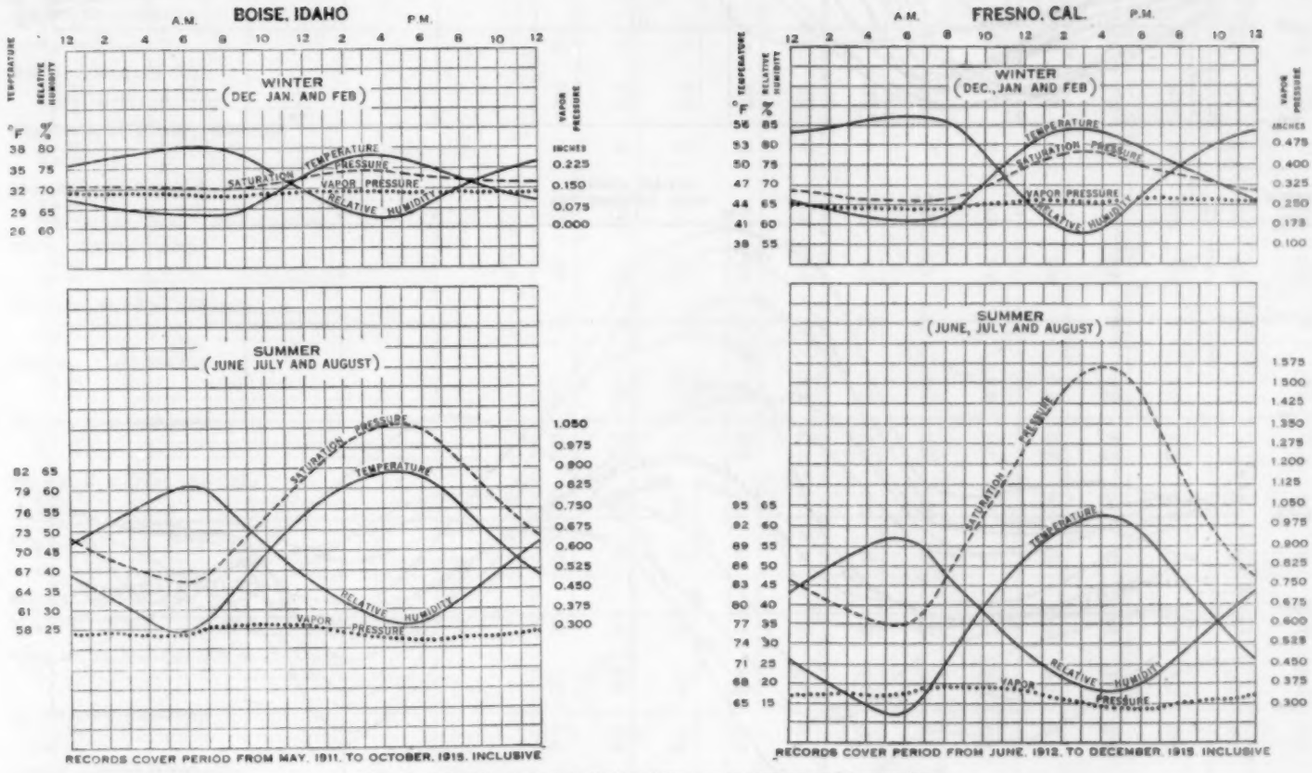


FIG. 5.—Diurnal march of relative humidity, vapor pressure, and temperature.

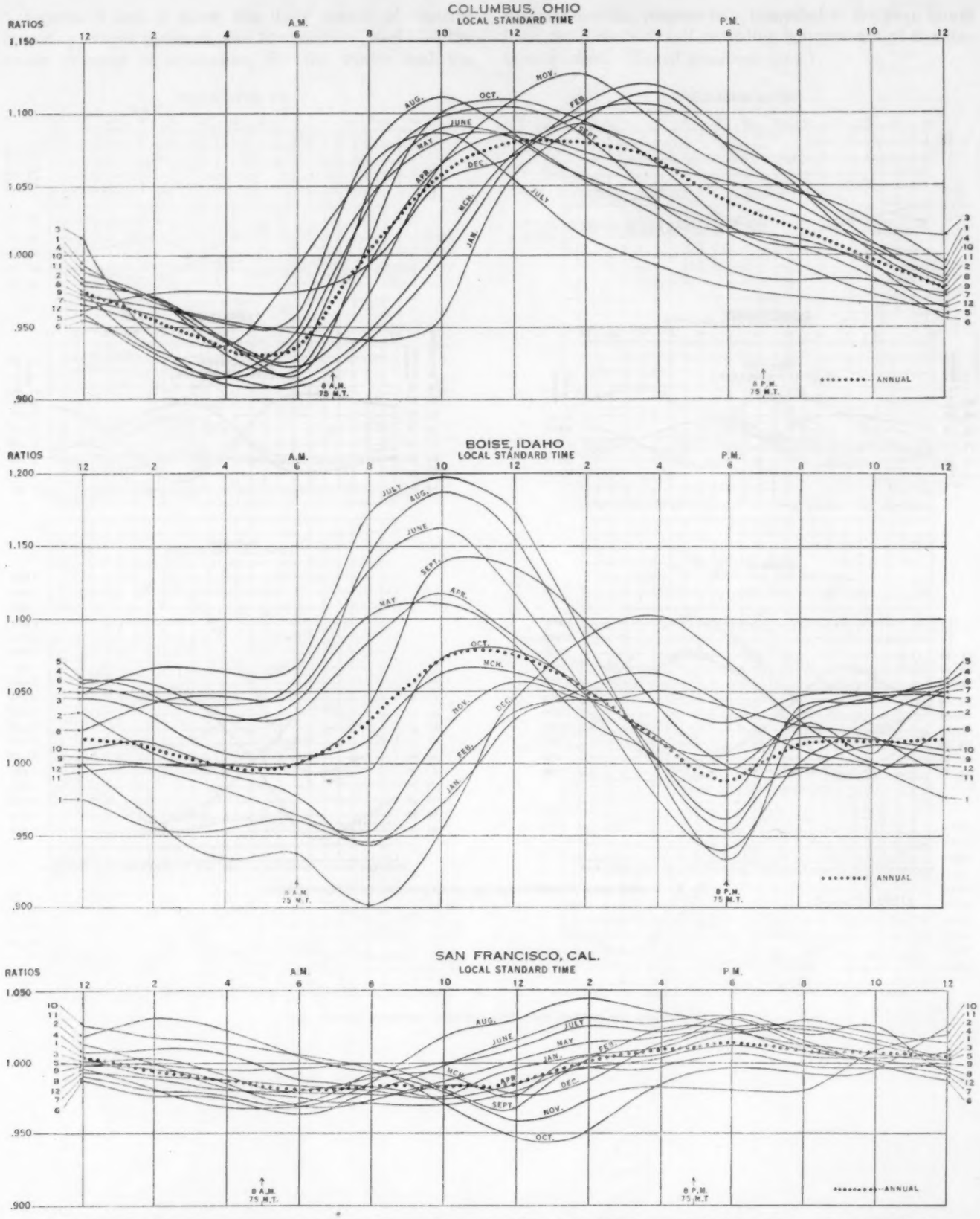


FIG. 6.—The ratios of the mean vapor pressures at 8 a. m. and 8 p. m., 75th meridian time, to their bihourly means for local standard time. (Data from Table 9.)

TABLE 1.—*Average monthly values of the relative humidity in the United States at 8 a. m. and 8 p. m (75th mer. time) at regular Weather Bureau stations for the periods indicated after each station, but usually for the period 1889–1913.*

[To compute bihourly values of relative humidity from these means see Tables 4 and 6.]

Atlantic coast and Appalachian Mountains region.

Stations.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
Albany, N. Y. (1889–1913):	*Per ct.*	*Per ct.*	*Per ct.*	*Per ct.*	*Per ct.*	*Per ct.*	*Per ct.*	*Per ct.*	*Per ct.*	*Per ct.*	*Per ct.*	*Per ct.*	*Per ct.*
8 a. m.	82	81	79	73	72	74	75	78	81	82	82	82	78
8 p. m.	78	77	72	64	64	67	66	69	73	73	75	75	72
Asheville, N. C. (Sept., 1902–1913):													
8 a. m.	83	82	83	80	82	85	88	92	90	86	83	84	85
8 p. m.	72	70	66	64	67	75	78	80	76	69	65	70	71
Atlanta, Ga. (1889–1913):													
8 a. m.	81	78	78	74	74	78	83	85	82	77	77	80	79
8 p. m.	70	65	62	59	59	63	70	72	66	61	63	70	65
Atlantic City, N. J. (1889–1913):													
8 a. m.	82	78	80	77	80	81	81	82	81	80	80	80	80
8 p. m.	77	75	78	78	82	84	84	82	80	77	75	76	79
Augusta, Ga. (1889–1913):													
8 a. m.	83	81	81	77	76	79	82	85	86	84	85	85	82
8 p. m.	68	63	60	56	58	65	70	74	70	69	68	70	66
Baltimore, Md. (1889–1913):													
8 a. m.	75	72	72	65	68	71	71	74	76	74	73	74	72
8 p. m.	69	65	65	59	63	67	67	70	72	68	66	67	66
Binghamton, N. Y. (Oct., 1896–1913):													
8 a. m.	82	81	79	73	74	77	78	83	86	84	82	82	80
8 p. m.													
Block Island, R. I. (1889–1913):													
8 a. m.	77	75	79	80	84	86	86	85	83	79	76	76	81
8 p. m.	75	75	80	81	86	88	88	87	84	78	75	74	81
Boston, Mass. (1889–1913):													
8 a. m.	73	71	70	68	70	72	71	75	77	75	75	73	73
8 p. m.	70	67	68	67	70	71	71	74	76	72	71	69	70
Burlington, Vt. (Apr., 1906–1913):													
8 a. m.	80	81	76	70	71	72	73	76	81	79	78	80	76
8 p. m.													
Charleston, S. C. (1889–1913):													
8 a. m.	81	80	81	75	76	78	79	82	83	80	80	80	79
8 p. m.	76	76	76	74	76	78	79	80	80	76	75	75	77
Charlotte, N. C. (1889–1913):													
8 a. m.	78	76	78	72	74	79	82	85	83	79	78	79	78
8 p. m.	65	62	60	55	57	66	70	73	68	62	60	65	64
Columbia, S. C. (June, 1901–1913):													
8 a. m.	80	78	80	75	76	79	81	86	85	81	78	80	80
8 p. m.	62	60	57	54	57	65	69	72	68	62	58	64	62
Concord, N. H. (1903–1913):													
8 a. m.	78	74	75	71	74	75	76	82	85	83	78	78	77
8 p. m.													
Eastport, Me. (1889–1913):													
8 a. m.	77	76	77	75	79	81	83	83	82	80	78	76	79
8 p. m.	76	76	77	76	80	82	83	82	82	79	78	75	79
Elkins, W. Va. (8 a—1899–1913; 8 p—1901–1913):													
8 a. m.	84	85	83	80	80	85	87	91	92	89	85	85	86
8 p. m.	79	75	71	64	66	75	78	82	84	77	74	79	75
Harrisburg, Pa. (1889–1913):													
8 a. m.	77	75	73	66	70	73	74	77	80	78	76	76	75
8 p. m.	73	69	66	59	63	68	65	68	71	69	68	71	68
Hartford, Conn. (Oct., 1904–1913):													
8 a. m.	75	72	70	69	71	72	74	79	82	78	75	75	74
8 p. m.	68	65	65	63	65	67	68	71	75	68	67	68	68
Hatteras, N. C. (1889–1913):													
8 a. m.	85	83	83	79	81	83	83	83	81	81	82	84	87
8 p. m.	85	85	85	82	84	86	85	85	83	82	82	84	88
Jacksonville, Fla. (1889–1913):													
8 a. m.	86	84	83	78	79	81	83	85	86	84	85	87	83
8 p. m.	77	74	72	69	73	78	79	81	82	79	78	77	77
Key West, Fla. (1889–1913):													
8 a. m.	83	81	78	73	74	76	73	74	77	79	80	82	78
8 p. m.	81	79	76	74	75	77	75	75	78	78	79	80	77
Lynchburg, Va. (1889–1913):													
8 a. m.	76	75	75	70	74	77	77	81	83	81	77	76	77
8 p. m.	70	67	64	58	65	71	70	74	75	75	68	69	69
Macon, Ga. (May, 1899–1913):													
8 a. m.	84	83	83	80	78	79	83	86	86	84	85	84	83
8 p. m.													
Mount Weather, Va. (Nov., 1907–1913):													
8 a. m.	78	77	75	74	72	79	76	82	83	78	71	74	76
8 p. m.	76	72	69	68	65	73	68	73	74	73	68	71	71
Nantucket, Mass. (1889–1913):													
8 a. m.	80	79	80	80	82	83	84	84	82	80	80	80	81
8 p. m.	79	78	82	84	87	88	89	89	86	82	80	79	84
New Haven, Conn. (1889–1913):													
8 a. m.	74	71	72	70	72	74	76	78	80	77	75	73	75
8 p. m.	71	69	70	68	71	73	75	76	78	74	71	71	72

TABLE 1.—*Average monthly values of the relative humidity in the United States at 8 a. m. and 8 p. m. (75th mer. time) at regular Weather Bureau stations for the periods indicated after each station, but usually for the period 1889–1913*—Continued.

Atlantic coast and Appalachian Mountains region—Continued.

Stations.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
New York, N. Y. (1889–1913):	*Per ct.*	*Per ct.*	*Per ct.*	*Per ct.*	*Per ct.*	*Per ct.*	*Per ct.*	*Per ct.*	*Per ct.*	*Per ct.*	*Per ct.*	*Per ct.*	*Per ct.*
8 a. m.	76	73	73	71	73	75	76	78	79	76	75	75	75
8 p. m.	71	69	68	65	68	69	69	71	72	69	69	70	69
Norfolk, Va. (1889–1913):													
8 a. m.	80	78	79	76	77	79	81	83	82	81	80	79	80
8 p. m.	73	74	73	71	74	77	77	80	80	76	71	71	75
Northfield, Vt. (1889–1913):													
8 a. m.	82	80	79	72	72	75	77	83	85	84	83	82	80
8 p. m.	79	76	74	69	70	75	78	82	84	79	79	80	77
Philadelphia, Pa. (1889–1913):													
8 a. m.	76	74	73	68	70	71	72	75	78	75	74	75	74
8 p. m.	70	67	65	60	64	65	65	68	70	67	66	68	66
Portland, Me. (1889–1913):													
8 a. m.	77	74	72	69	72	73	75	78	79	78	77	76	75
8 p. m.	70	68	70	70	74	74	76	79	79	75	72	71	73
Providence, R. I. (Nov., 1904–1913):													
8 a. m.	76	71	70	69	70	70	73	77	81	78	74	76	74
8 p. m.	69	67	68	66	68	71	72	75	80	74	70	70	71
Raleigh, N. C. (1889–1913):													
8 a. m.	78	76	77	72	75	78	80	85	83	80	78	78	79
8 p. m.	65	63	62	57	62	68	72	75	72	68	63	65	66
Richmond, Va. (1898–1913):													
8 a. m.	80	77	79	73	75	77	77	83	83	82	78	79	78
8 p. m.													
Savannah, Ga. (1889–1913):													
8 a. m.	81	79	81	76	77	80	82	85	87	82	82	82	81
8 p. m.	72	71	73	71	74	78	80	82	82	76	73	72	75
Scranton, Pa. (1901–1913):													
8 a. m.	78	77	77	72	70	74	74	80	83	82	79	78	77
8 p. m.	72	70	69	63	61	66	66	69	72	72	71	73	69
Thomasville, Ga. (8a.m.=1906–1913; 8p.m.=1907–1913):													
8 a. m.	88	85	85	80	79	82	87	89	88	85	87	86	85
8 p. m.	76	70	68	68	65	74	82	83	84	76	77	78	75
Washington, D. C. (1889–1913):													
8 a. m.	76	73	74	69	74	76	77	80	82	81	77	76	76
8 p. m.	68	64	62	59	65	70	71	74	76	72	67	67	68
Wilmington, N. C. (1889–1913):													
8 a. m.	80	79	80	76	79	81	83	86	86	83	82	80	81
8 p. m.	74	73	75	72	76	80	82	84	81	77	74	74	77
Wytheville, Va. (1903–1913):													
8 a. m.	85	84	84	79	80	85	87	90	91	85	81	84	85
8 p. m.	80	75	74	69	71	79	79	83	82	77	72	78	77

Gulf States.

Anniston, Ala. (Oct., 1905–1913):													
8 a. m.	81	79	77	75	76	78	82	84	84	83	81	81	80
8 p. m.													
Birmingham, Ala. (8a.m.=Sept., 1903–1913; 8p.m.=Aug., 1906–1913):													
8 a. m.	79	76	76	76	77	78	83	85	82	80	76	78	79
8 p. m.	67	63	57	59	63	66	72	70	70	64	59	60	65
Corpus Christi, Tex. (1889–1913):													
8 a. m.	85	85	86	86	85	86	87	88	87	83	81	84	86
8 p. m.	78	78	79	79	79	78	76	76	74	72	78	77	77
Galveston, Tex. (1889–1913):													
8 a. m.	86	87	88	86	82	82	81	82	81	80	83	85	84
8 p. m.	83	83	83	81	78	76	74	75	73	72	78	80	78
Meridian, Miss. (8a.m.=Sept., 1889–Aug., 1896; 1899–1913. 8p.m.=Sept., 1889–Aug., 1896; July, 1906–1913):													
8 a. m.	84	83	83	82	83	83	86	88	88	86	86	85	84
8 p. m.	72	70	64	62	64	68	72	72	74	68	69	74	69
Mobile, Ala. (1889–1913):													
8 a. m.	85	83	85	82	81	81	84	86	85	83	84	85	84
8 p. m.	75	74	75	72	71	73	77	78	75	70	73	76	74
Montgomery, Ala. (1889–1913):													
8 a. m.	84	82	82	78	78	80	84	86	84	83	83	84	82
8 p. m.	68	66	62	57	57	62	69	71	65	60	61	68	64
New Orleans, La. (1889–1913):													
8 a. m.	85	84	85	83	81	81	83	84	84	81	83	84	83
8 p. m.	73	72	71	68	68	71	74	75	74	69	73	74	72
Palestine, Tex. (1889–1913):													
8 a. m.	83	83	83	84	87	87	88	88	87	84	83	83	85
8 p. m.	65	63	60	60	64	62	61	61	61	60	62	65	62
Pensacola, Fla. (1889–1913):													
8 a. m.	82	80	82	79	77	79	81	83	81	76	79	82	80
8 p. m.	78	78	78	75	73	76	78	78	74	68	73	77	75
San Antonio, Tex. (1889–1913):													
8 a. m.	76	76	77	81	84	84	85	85	84	80	79	77	81
8 p. m.	50	54	50	54	56	51	50	49	53	52	56	57	53

TABLE 1.—*Average monthly values of the relative humidity in the United States at 8 a. m. and 8 p. m. (75th mer. time) at regular Weather Bureau stations for the periods indicated after each station, but usually for the period 1889–1913*—Continued.

Gulf States—Continued.

Stations.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
Shreveport, La. (1889–1913):	*Per ct.*	*Per ct.*	*Per ct.*	*Per ct.*	*Per ct.*	*Per ct.*	*Per ct.*	*Per ct.*	*Per ct.*	*Per ct.*	*Per ct.*	*Per ct.*	*Per ct.*
8 a. m.	81	79	80	81	84	84	86	86	86	85	83	82	83
8 p. m.	65	61	58	59	62	63	65	64	63	59	60	64	62
Tampa, Fla. (Apr., 1890–1913):													
8 a. m.	87	86	85	79	79	82	83	85	86	84	86	87	84
8 p. m.	76	75	73	69	71	78	81	82	81	76	76	77	76
Taylor, Tex. (8a=Dec., 1901–1913):													
8 a. m.	82	81	84	84	88	86	88	88	88	85	84	82	85
8 p. m.													
Vicksburg, Miss. (1889–1913):													
8 a. m.	80	78	78	79	82	83	87	88	85	82	81	80	82
8 p. m.	66	63	59	59	62	67	72	74	69	62	61	64	65

Ohio Valley and Great Lakes region.

Alpena, Mich. (1889–1913):													
8 a. m.	86	85	83	78	76	77	78	83	85	86	86	86	82
8 p. m.	82	81	77	74	73	73	71	75	79	79	81	82	77
Buffalo, N. Y. (1889–1913):													
8 a. m.	80	79	77	73	74	76	75	75	77	76	77	79	77
8 p. m.	78	79	75	71	71	71	70	69	72	72	75	77	73
Canton, N. Y. (8a=July 1906–1913):													
8 a. m.	86	86	80	74	73	72	74	76	80	82	84	87	79
8 p. m.													
Chattanooga, Tenn. (1889–1913):													
8 a. m.	80	76	77	74	77	79	81	84	84	83	80	80	80
8 p. m.	67	62	60	55	59	64	67	68	66	63	62	68	63
Chicago, Ill. (1889–1913):													
8 a. m.	84	83	79	75	75	75	74	78	76	77	79	82	78
8 p. m.	79	78	75	70	68	69	66	69	68	67	73	78	71
Cincinnati, Ohio (1889–1913):													
8 a. m.	79	79	75	70	71	73	74	77	78	78	77	80	76
8 p. m.	73	68	64	55	57	57	56	57	59	59	65	72	62
Cleveland, Ohio (1889–1913):													
8 a. m.	79	78	78	74	75	75	74	76	78	77	77	77	77
8 p. m.	76	75	73	68	66	66	65	67	69	69	73	74	70
Columbus, Ohio (1889–1913):													
8 a. m.	84	83	79	74	75	76	77	79	80	81	82	83	79
8 p. m.	77	74	68	62	61	62	60	61	62	64	70	76	66
Detroit, Mich. (1889–1913):													
8 a. m.	85	85	81	75	74	76	74	78	80	81	82	84	80
8 p. m.	81	78	73	66	65	66	62	64	68	70	76	80	71
Duluth, Minn. (1889–1913):													
8 a. m.	85	84	82	76	76	79	80	82	83	81	84	85	81
8 p. m.	78	75	71	65	64	68	66	70	71	72	77	80	71
Erie, Pa. (1889–1913):													
8 a. m.	81	83	80	73	73	74	71	72	75	74	76	80	76
8 p. m.	79	81	78	71	72	72	68	70	72	71	73	76	74
Escanaba, Mich. (1889–1913):													
8 a. m.	87	88	86	79	78	78	80	83	86	84	84	85	83
8 p. m.	80	79	79	71	69	69	71	73	77	74	77	79	75
Evansville, Ind. (8a=Dec. 1897–1913):													
8 a. m.	84	82	79	75	75	77	78	81	82	81	80	82	80
8 p. m.													
Grand Haven, Mich. (1890–June 1903; Aug. 1905–1913):													
8 a. m.	88	87	83	77	77	78	78	81	84	82	82	85	83
8 p. m.	84	82	77	69	68	68	64	70	72	74	77	81	74
Grand Rapids, Mich. (July 1903–1913):													
8 a. m.	89	88	84	78	76	76	76	81	84	85	85	88	82
8 p. m.	85	81	74	64	61	59	57	63	68	71	77	83	70
Green Bay, Wis. (1889–1913):													
8 a. m.	79	79	77	75	75	76	77	81	83	81	79	80	78
8 p. m.	77	75	73	65	64	64	63	65	69	70	74	77	70
Houghton, Mich. (Sept. 1900–1913):													
8 a. m.	76	77	79	78	77	76	80	83	86	82	80	80	80
8 p. m.													
Indianapolis, Ind. (1889–1913):													
8 a. m.	83	81	78	72	73	74	73	77	78	78	79	81	77
8 p. m.	76	73	67	61	61	60	58	58	61	60	67	74	64
Knoxville, Tenn. (1889–1913):													
8 a. m.	84	80	80	75	78	81	84	87	86	86	84	84	82
8 p. m.	70	64	60	55	59	66	68	71	67	63	63	70	65
Louisville, Ky. (1889–1913):													
8 a. m.	78	77	75	70	72	73	74	78	79	78	76	77	76
8 p. m.	69	67	62	56	57	59	57	58	59	57	62	68	61
Marquette, Mich. (1889–1913):													
8 a. m.	83	83	80	74	73	73	76	80	82	82	84	86	78
8 p. m.	80	79	77	71	70	69	73	78	79	78	82	82	75

TABLE 1.—*Average monthly values of the relative humidity in the United States at 8 a. m. and 8 p. m. (75th mer. time) at regular Weather Bureau stations for the periods indicated after each station, but usually for the period 1889–1913*—Continued.

Ohio Valley and Great Lakes region—Continued.

Stations.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
Milwaukee, Wis. (1889–1913):	*Per ct.*	*Per ct.*	*Per ct.*	*Per ct.*	*Per ct.*	*Per ct.*	*Per ct.*	*Per ct.*	*Per ct.*	*Per ct.*	*Per ct.*	*Per ct.*	*Per ct.*
8 a. m.	80	79	79	76	75	76	76	78	80	81	80	81	78
8 p. m.	78	76	75	71	69	69	67	70	72	72	74	76	72
Nashville, Tenn. (1889–1913):													
8 a. m.	81	80	78	75	77	78	80	83	83	83	80	81	80
8 p. m.	69	66	61	56	58	61	63	63	61	57	61	69	62
Oswego, N. Y. (1889–1913):													
8 a. m.	85	86	80	74	75	76	77	77	79	77	79	84	79
8 p. m.	82	81	76	71	70	72	71	72	73	72	75	80	74
Parkersburg, W. Va. (1889–1913):													
8 a. m.	84	84	81	75	76	79	80	82	84	83	82	83	81
8 p. m.	78	76	70	63	64	69	68	69	71	70	72	76	70
Pittsburgh, Pa. (1889–1913):													
8 a. m.	81	80	77	72	73	75	75	78	80	79	77	79	77
8 p. m.	74	72	67	61	60	63	61	60	63	63	68	73	66
Port Huron, Mich. (1889–1913):													
8 a. m.	84	84	81	76	75	76	76	79	82	82	83	83	80
8 p. m.	81	79	76	71	70	72	69	70	73	73	77	80	74
Rochester, N. Y. (1889–1913):													
8 a. m.	79	80	76	70	69	71	72	75	78	78	78	79	75
8 p. m.	78	77	73	66	66	66	65	67	72	73	75	77	71
Sault Ste. Marie, Mich. (1889–1913):													
8 a. m.	87	87	85	79	78	80	84	86	88	87	85	86	84
8 p. m.	86	83	78	69	67	68	71	75	79	80	82	84	77
Syracuse, N. Y. (Sept. 1902–1913):													
8 a. m.	82	84	78	70	70	73	74	76	79	77	78	82	77
8 p. m.													
Toledo, Ohio (1889–1913):													
8 a. m.	84	83	79	74	74	75	74	77	80	80	81	83	79
8 p. m.	78	75	71	64	63	64	61	64	67	68	72	76	69

Mississippi Valley.

Bentonville, Ark. (Mar. 1906–1913):													
8 a. m.	80	77	76	75	80	81	84	85	86	84	78	80	80
8 p. m.													
Cairo, Ill. (1889–1913):													
8 a. m.	82	80	77	75	78	81	82	85	85	83	78	80	81
8 p. m.	72	69	69	62	64	67	69	70	71	66	64	71	68
Charles City, Iowa (1905–1913):													
8 a. m.	95	93	88	83	81	83	86	89	91	87	89	92	88
8 p. m.	90	84	75	64	62	63	61	68	75	72	77	85	72
Columbia, Mo. (1889–1913):													
8 a. m.													
8 p. m.	75	73	68	64	68	71	70	71	73	69	69	75	70
Davenport, Iowa (1889–1913):													
8 a. m.	85	85	80	75	75	78	76	80	82	81	82	84	80
8 p. m.	78	75	66	57	59	60	56	60	65	63	68	76	65
Des Moines, Iowa (1889–1913):													
8 a. m.	82	82	79	76	76	79	79	81	83	80	79	82	80
8 p. m.	76	73	65	55	56	59	56	59	63	59	65	74	63
Dubuque, Iowa (1889–May, 1894; Apr., 1896–1913):													
8 a. m.	84	84	81	76	75	78	78	81	84	82	82	84	81
8 p. m.	78	78	71	59	60	61	59	63	66	66	71	78	67
Fort Smith, Ark. (1889–1913):													
8 a. m.	80	78	75	76	80	81	82	84	84	83	80	78	80
8 p. m.	64	61	56	54	62	61	60	60	61	57	59	63	60
Hannibal Mo. (8a—May 1892–1913):													
8 a. m.	82	82	79	76	78	79	79	82	84	82	80	82	80
8 p. m.													
Kansas City, Mo. (1889–1913):													
8 a. m.	78	80	77	74	76	78	78	79	79	76	75	79	77
8 p. m.	71	71	63	56	59	59	58	58	61	56	62	70	62
Keokuk, Iowa (1889–1913):													
8 a. m.	81	80	79	76	77	78	77	79	82	81	80	80	79
8 p. m.	77	75	68	62	62	64	59	62	66	64	68	75	67
Little Rock, Ark. (1889–1913):													
8 a. m.	80	79	77	77	81	81	84	85	84	83	80	80	81
8 p. m.	66	62	59	58	62	64	65	65	65	60	59	64	63
Madison, Wis. (Oct. 1904–1913):													
8 a. m.	85	85	82	77	75	77	79	83	85	81	82	86	82
8 p. m.	78	75	69	61	62	63	60	65	69	66	73	78	68
Memphis, Tenn. (1889–1913):													
8 a. m.	78	77	75	73	77	79	82	83	82	79	78	79	79
8 p. m.	68	65	64	61	63	65	68	69	66	63	61	68	65
Peoria, Ill. (8a—Feb. 1905–1913; 8p—Feb. 1906–1913):													
8 a. m.	86	85	83	78	77	79	82	85	87	85	83	86	83
8 p. m.	78	75	68	60	59	59	60	64	70	68	71	78	68

TABLE 1.—*Average monthly values of the relative humidity in the United States at 8 a. m. and 8 p. m. (75th mer. time) at regular Weather Bureau stations for the periods indicated after each station, but usually for the period 1889–1913*—Continued.

Mississippi Valley—Continued.

Stations.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
St. Louis, Mo. (1889–1913):	*Per ct.*	*Per ct.*	*Per ct.*	*Per ct.*	*Per ct.*	*Per ct.*	*Per ct.*	*Per ct.*	*Per ct.*	*Per ct.*	*Per ct.*	*Per ct.*	*Per ct.*
8 a. m.	80	78	77	73	75	75	75	77	79	77	76	78	77
8 p. m.	70	70	65	60	60	60	59	58	61	58	63	69	63
St. Paul, Minn. (1889–1913):													
8 a. m.	83	84	80	74	74	78	79	83	83	80	80	83	80
8 p. m.	75	74	66	54	52	56	54	56	60	62	69	75	63
Springfield, Ill. (1889–1913):													
8 a. m.	82	81	79	74	76	76	76	79	81	80	79	80	79
8 p. m.	75	73	67	60	61	61	58	61	65	60	67	74	65
Springfield, Mo. (1889–1913):													
8 a. m.	83	83	79	77	81	83	82	84	83	80	80	82	81
8 p. m.	73	70	63	58	61	65	64	63	64	60	63	71	64
Plains region.													
Abilene, Tex. (1889–1913):													
8 a. m.	77	75	71	73	78	76	75	75	79	77	77	77	77
8 p. m.	55	51	43	44	48	44	42	43	50	52	55	59	49
Amarillo, Tex. (1892–1913):													
8 a. m.	74	78	70	71	76	78	78	79	80	77	75	77	76
8 p. m.	53	54	38	39	41	44	44	45	47	50	52	50	47
Bismarck, N. Dak. (1889–1913):													
8 a. m.	80	80	80	76	77	81	80	81	81	81	81	80	80
8 p. m.	69	69	65	53	53	58	52	50	53	60	69	69	61
Concordia, Kans. (1889–1913):													
8 a. m.	83	83	79	76	78	80	78	80	80	80	80	83	80
8 p. m.	71	71	60	51	55	55	52	54	58	61	65	71	60
Del Rio, Tex. (1906–1913):													
8 a. m.	76	71	76	77	78	78	79	77	82	83	84	80	78
8 p. m.													
Devils Lake, N. Dak. (Dec. 1904–1913):													
8 a. m.	87	87	85	80	80	79	83	85	84	84	86	88	84
8 p. m.	83	82	74	57	55	57	57	58	59	64	78	82	67
Dodge City, Kans (1889–1913):													
8 a. m.	80	81	77	75	79	80	79	80	80	79	78	79	79
8 p. m.	63	61	50	45	51	51	48	48	50	53	57	62	53
Fort Worth, Tex. (Sept. 1899–1913):													
8 a. m.	78	76	75	78	81	79	80	79	81	79	78	77	78
8 p. m.													
Huron, S. Dak. (1889–1913):													
8 a. m.	86	86	83	80	78	82	82	84	83	81	81	85	83
8 p. m.	77	76	66	52	50	55	51	51	51	56	64	74	61
Iola, Kans. (Sept. 1905–1913):													
8 a. m.	84	82	81	77	79	81	82	82	87	84	81	85	82
8 p. m.													
Lincoln, Nebr. (1894–1913):													
8 a. m.	81	82	79	75	78	80	78	81	82	78	78	81	79
8 p. m.	69	67	59	51	55	55	53	56	58	57	62	69	59
Moorhead, Minn. (1889–1913):													
8 a. m.	88	88	89	85	81	83	86	88	88	87	89	90	87
8 p. m.	86	86	81	63	55	60	62	62	65	70	82	86	72
North Platte, Nebr. (1889–1913):													
8 a. m.	81	81	80	78	79	81	82	84	82	80	80	81	81
8 p. m.	66	64	57	49	50	54	52	53	50	52	58	65	56
Oklahoma, Okla. (1889–1913):													
8 a. m.	80	79	78	77	82	82	82	81	81	79	78	80	80
8 p. m.	66	63	56	53	61	58	56	53	56	56	61	67	59
Omaha, Nebr. (1889–1913):													
8 a. m.	82	81	78	73	75	77	76	79	79	76	77	81	78
8 p. m.	71	69	62	53	55	56	54	57	58	55	61	69	60
Pierre, S. Dak. (1889–1913):													
8 a. m.	76	77	77	72	73	75	72	75	73	73	74	77	74
8 p. m.	70	69	59	45	44	46	41	43	45	49	59	70	53
Rapid City, S. Dak. (1889–1913):													
8 a. m.	72	76	75	70	70	71	66	66	65	66	68	71	70
8 p. m.	67	68	61	49	49	49	42	41	44	51	60	66	54
Sioux City, Iowa (8a=July, 1889–1913. 8p=July, 1889–1895, 1910–1913):													
8 a. m.	84	84	81	76	76	79	79	82	82	80	80	83	81
8 p. m.	77	73	62	51	50	54	51	57	57	54	63	72	61
Valentine, Nebr. (1889–Feb., 1895, May, 1897–1913):													
8 a. m.	81	82	80	77	78	78	78	81	77	78	77	81	79
8 p. m.	71	71	61	48	49	50	46	48	47	50	58	70	56
Wichita, Kans. (1889–1913):													
8 a. m.	80	80	76	74	78	79	79	80	77	78	80	78	
8 p. m.	66	64	56	50	57	56	54	53	55	54	58	65	57
Williston, N. Dak. (1889–1913):													
8 a. m.	84	84	83	77	76	78	77	78	80	80	82	83	80
8 p. m.	82	81	71	49	47	51	43	42	47	57	72	79	60
Yankton, S. Dak. (Oct., 1897–1913):													
8 a. m.	81	80	79	78	79	79	80	84	84	81	80	80	80
8 p. m.													

TABLE 1.—*Average monthly values of the relative humidity in the United States at 8 a. m. and 8 p. m (75th mer. time) at regular Weather Bureau stations for the periods indicated after each station, but usually for the period 1889–1913*—Continued.

Rocky Mountains and Plateau region.

Stations.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
Baker, Oreg. (July 1889–1909, Mar. 1911–1913):	*Per ct.*	*Per ct.*	*Per ct.*	*Per ct.*	*Per ct.*	*Per ct.*	*Per ct.*	*Per ct.*	*Per ct.*	*Per ct.*	*Per ct.*	*Per ct.*	*Per ct.*
8 a. m.	82	79	76	71	73	71	61	60	66	71	75	80	72
8 p. m.	73	68	57	43	45	42	31	31	37	48	64	73	51
Boise, Idaho (Dec. 1898–1913):													
8 a. m.	83	79	75	69	71	68	55	53	60	70	74	83	70
8 p. m.	71	60	48	37	36	31	22	22	30	43	58	73	44
Cheyenne, Wyo. (1889–1913):													
8 a. m.	59	66	67	68	72	69	69	68	64	62	58	59	65
8 p. m.	52	57	51	47	49	44	41	40	38	46	50	53	47
Denver, Colo. (1889–1913):													
8 a. m.	60	64	63	62	67	64	65	65	63	61	58	60	63
8 p. m.	49	49	43	37	40	35	38	36	34	38	43	50	41
Durango, Colo. (1905–1913):													
8 a. m.	81	79	76	70	64	66	75	79	78	74	79	81	75
8 p. m.	64	54	44	33	25	24	38	41	38	40	56	64	43
El Paso, Tex. (1889–1913):													
8 a. m.	61	54	41	38	35	43	61	64	64	60	60	61	54
8 p. m.	33	26	18	14	13	17	30	33	33	31	34	36	26
Flagstaff, Ariz. (1904–1911):													
8 a. m.	84	84	80	73	66	55	73	88	82	74	78	80	76
8 p. m.	67	60	48	33	28	22	42	53	43	40	54	62	46
Grand Junction, Colo. (1899–1913):													
8 a. m.	79	75	66	60	53	45	48	53	55	62	69	77	62
8 p. m.	63	54	39	31	26	22	24	28	30	37	46	60	38
Havre, Mont. (1889–1913):													
8 a. m.	83	86	84	79	79	79	77	77	81	79	80	82	81
8 p. m.	79	80	69	47	48	47	39	38	48	59	72	78	58
Helena, Mont. (1889–1913):													
8 a. m.	73	74	70	66	69	68	62	60	67	68	68	73	68
8 p. m.	67	64	55	42	44	42	33	31	42	50	60	67	50
Independence, Cal. (1895, Apr. 1898–1913):													
8 a. m.	67	64	55	45	43	35	34	39	39	48	57	64	49
8 p. m.	46	37	27	20	18	15	16	16	18	27	35	43	37
Kalispell, Mont. (June 1899–1913):													
8 a. m.	86	86	81	79	82	81	78	78	83	86	86	86	82
8 p. m.	79	72	57	43	48	47	38	39	56	63	77	82	58
Lander, Wyo. (1892–1913):													
8 a. m.	76	76	74	73	74	70	69	70	72	74	73	78	73
8 p. m.	65	62	51	40	39	33	31	31	37	50	57	66	47
Lewiston, Idaho (Oct. 1900–1913):													
8 a. m.	84	83	81	77	80	76	64	66	77	87	86	85	79
8 p. m.													
Miles City, Mont. (Oct. 1891–1899, 1905–1913):													
8 a. m.	84	85	84	78	76	76	71	70	76	82	82	83	79
8 p. m.	78	76	68	50	49	48	37	37	47	59	72	77	59
Modena, Utah (1901–1913):													
8 a. m.	79	79	76	66	58	46	50	62	58	64	74	79	66
8 p. m.	62	60	47	31	26	17	23	29	26	32	49	63	39
Phoenix, Ariz. (Sept. 1895–1913):													
8 a. m.	68	65	59	48	39	33	51	59	52	53	62	66	54
8 p. m.	39	34	29	20	15	13	23	27	25	28	37	38	28
Pocatello, Idaho (July 1899–1913):													
8 a. m.	79	79	76	69	69	63	56	53	58	68	71	79	68
8 p. m.	74	68	57	44	39	34	26	26	29	45	59	72	48
Pueblo, Colo. (1889–1913):													
8 a. m.	64	65	62	61	63	62	66	68	64	62	63	65	64
8 p. m.	48	45	34	30	32	30	35	36	32	35	42	49	37
Reno, Nev. (1906–1913):													
8 a. m.	84	78	76	68	70	66	63	59	66	71	77	84	72
8 p. m.	64	49	41	31	33	28	26	22	26	34	48	63	39
Roswell, N. Mex. (1905–1913):													
8 a. m.	79	76	69	70	67	74	80	84	85	81	81	81	77
8 p. m.	44	39	31	29	26	35	41	45	46	48	53	53	41
Salt Lake City, Utah (1889–1913):													
8 a. m.	75	72	66	58	57	49	45	47	49	58	65	73	60
8 p. m.	70	63	51	38	36	28	24	27	32	45	58	70	45
Santa Fe, N. Mex. (1889–1913):													
8 a. m.	63	64	57	51	48	46	60	63	61	59	57	63	58
8 p. m.	52	49	35	28	26	25	38	39	37	40	47	54	40
Sheridan, Wyo. (1908–1913):													
8 a. m.	82	85	82	78	81	77	75	78	83	81	84	84	81
8 p. m.	72	69	55	44	48	46	35	38	48	56	66	72	54
Spokane, Wash. (1890–1913):													
8 a. m.	87	85	80	75	74	71	66	64	74	82	86	87	77
8 p. m.	79	68	51	39	38	34	26	25	35	50	73	81	50
Tonopah, Nev. (1907–1913):													
8 a. m.	75	73	66	51	48	41	39	36	40	51	56	69	54
8 p. m.	64	57	43	27	26	22	22	19	23	34	43	56	36

TABLE 1.—*Average monthly values of the relative humidity in the United States at 8 a. m. and 8 p. m. (75th mer. time) at regular Weather Bureau stations for the periods indicated after each station, but usually for the period 1889–1913*—Continued.

Rocky Mountains and Plateau region—Continued.

Stations.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual
Walla Walla, Wash. (1889–1913):	*Per ct.*	*Per ct.*	*Per ct.*	*Per ct.*	*Per ct.*	*Per ct.*	*Per ct.*	*Per ct.*	*Per ct.*	*Per ct.*	*Per ct.*	*Per ct.*	*Per ct.*
8 a. m.	86	84	80	72	72	69	58	56	67	75	79	85	74
8 p. m.	83	75	62	48	44	39	27	29	44	59	73	83	56
Winnemucca, Nev. (1889–1913):													
8 a. m.	83	79	76	67	67	58	47	45	53	65	71	80	66
8 p. m.	67	57	44	31	29	22	18	18	24	34	47	66	38
Yellowstone Park, Wyo. (1904–1913):													
8 a. m.	78	78	78	74	77	74	77	73	74	74	72	77	76
8 p. m.	74	67	63	49	50	45	40	37	43	56	64	72	56
Yuma, Ariz. (1889–1913):													
8 a. m.	56	58	58	54	56	56	63	67	64	59	56	54	59
8 p. m.	32	30	25	19	18	17	27	30	27	28	32	34	27
Pacific Coast.													
Eureka, Cal. (1889–1913):													
8 a. m.	88	89	89	89	90	92	93	94	93	92	90	88	90
8 p. m.	81	79	78	77	79	79	82	83	81	83	83	81	81
Fresno, Cal. (1889–1913):													
8 a. m.	92	88	86	80	73	59	50	54	62	73	82	90	74
8 p. m.	70	56	49	35	27	19	14	15	22	35	51	70	39
Los Angeles, Cal. (1889–1913):													
8 a. m.	67	73	79	82	86	88	89	87	82	75	64	59	78
8 p. m.	62	62	63	62	64	62	61	62	62	65	62	60	62
Mount Tamalpais, Cal. (1899–1913):													
8 a. m.	80	78	77	68	68	55	42	45	49	60	73	74	64
8 p. m.	79	78	76	66	63	51	38	41	46	57	72	74	62
North Head, Wash. (1903–1913):													
8 a. m.	90	89	89	89	91	90	91	92	92	91	91	91	91
8 p. m.	88	84	83	81	84	83	84	85	85	84	88	88	85
Port Crescent, Wash. (8 p. m.—Oct. 1898–1913):													
8 a. m.													
8 p. m.	89	84	79	77	80	81	80	81	81	85	90	89	83
Portland, Oreg. (1889–1913):													
8 a. m.	88	85	85	85	85	83	83	85	87	90	89	88	86
8 p. m.	80	71	62	54	54	52	46	48	56	67	77	82	63
Red Bluff, Cal. (1889–1913):													
8 a. m.	88	83	81	75	70	59	50	52	57	66	78	86	70
8 p. m.	71	59	53	41	28	26	18	20	27	37	53	69	43
Roseburg, Oreg. (1889–1913):													
8 a. m.	92	92	91	89	90	89	87	87	91	95	92	93	90
8 p. m.	81	70	60	54	51	45	37	38	47	62	76	84	61
Sacramento, Cal. (1889–1913):													
8 a. m.	90	87	85	83	82	79	78	79	75	76	84	89	82
8 p. m.	75	64	58	49	47	40	36	37	38	45	58	74	52
San Diego, Cal. (1889–1913):													
8 a. m.	72	78	80	82	82	85	87	87	84	79	71	67	79
8 p. m.	68	68	68	68	72	72	74	73	72	72	69	66	70
San Francisco, Cal. (1891–1913):													
8 a. m.	86	85	84	84	86	89	92	92	88	85	85	83	87
8 p. m.	74	70	69	69	71	72	77	78	72	69	70	72	72
San Jose, Cal. (1906–1913):													
8 a. m.													
8 p. m.	72	63	63	57	54	53	52	53	52	51	62	68	59
San Luis Obispo, Cal. (Aug. 1894–1913):													
8 a. m.	78	79	81	81	84	84	87	88	83	79	76	73	81
8 p. m.	62	63	64	63	66	59	55	57	58	56	59	56	60
Seattle, Wash. (May 1893–1913):													
8 a. m.	88	86	86	86	86	85	85	88	89	91	89	89	87
8 p. m.	82	75	66	50	50	57	53	55	64	74	82	83	67
Tatoosh Island, Wash. (Aug. 1891–June 1898; 1903–1913):													
8 a. m.	86	86	86	87	88	91	94	94	91	89	86	86	89
8 p. m.	84	84	80	80	83	80	87	85	87	86	86	85	85

TABLE 2.—*Average monthly values of the relative humidity in the United States at 7ª, 11ª, 3P, 7P, and 11P (Washington time) for the period September, 1881, to July, 1886, inclusive.*

[Washington time is 0h 08m slower than 75th meridian time.]

Atlantic Coast district.

Corresponding local time.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
Albany, N. Y.:	*Per ct.*	*Per ct.*	*Per ct.*	*Per ct.*	*Per ct.*	*Per ct.*	*Per ct.*	*Per ct.*	*Per ct.*	*Per ct.*	*Per ct.*	*Per ct.*	*Per ct.*
7:13 a. m.	72	74	71	68	66	69	70	73	77	75	73	72	72
11:13 a. m.	65	65	58	51	51	53	54	56	60	60	60	67	58
3:13 p. m.	62	60	56	47	46	47	50	51	54	55	57	64	54
7:13 p. m.	70	68	64	57	55	58	59	61	68	66	66	72	64
11:13 p. m.	71	71	68	65	64	68	69	69	73	71	70	74	69
Atlanta, Ga.:													
6:31 a. m.	80	74	72	74	77	81	82	86	85	83	76	79	79
10:31 a. m.	72	64	58	57	57	63	60	65	65	67	62	66	63
2:31 p. m.	64	55	49	48	50	57	54	58	57	55	53	58	55
6:31 p. m.	70	62	56	56	58	67	61	67	66	67	61	65	63
10:31 p. m.	75	74	62	63	66	76	73	78	75	71	66	71	70
Atlantic City, N. J.:													
7:11 a. m.	80	82	80	81	84	85	84	84	85	85	82	81	83
11:11 a. m.	76	77	74	75	77	77	75	76	74	75	71	76	75
3:11 p. m.	76	75	72	73	74	75	73	74	73	73	70	74	74
7:11 p. m.	80	81	79	81	83	83	84	82	81	82	78	79	81
11:11 p. m.	80	82	81	84	86	87	88	86	85	84	82	82	84
Augusta, Ga.:													
6:41 a. m.	83	74	80	81	80	84	84	84	86	84	83	82	82
10:41 a. m.	68	62	56	53	52	60	59	60	62	60	60	64	60
2:41 p. m.	58	49	45	45	44	55	52	52	54	52	50	53	51
6:41 p. m.	68	61	55	55	55	67	65	65	69	69	68	68	64
10:41 p. m.	76	73	69	72	74	82	80	80	80	79	77	75	76
Baltimore, Md.:													
7:02 a. m.	73	72	70	69	70	72	74	76	78	79	71	71	73
11:02 a. m.	67	65	56	54	56	57	56	61	61	63	60	64	60
3:02 p. m.	65	58	52	50	52	52	51	55	55	58	57	60	55
7:02 p. m.	69	65	60	60	60	60	62	66	66	69	65	66	64
11:02 p. m.	73	70	64	67	71	73	74	77	75	75	70	69	72
Boston, Mass.:													
7:24 a. m.	74	75	72	73	74	73	76	79	81	79	77	76	76
11:24 a. m.	69	69	63	62	64	58	59	61	63	63	65	69	64
3:24 p. m.	67	66	61	61	64	58	58	61	63	64	63	66	63
7:24 p. m.	73	71	71	69	69	67	70	74	74	73	73	72	71
11:24 p. m.	76	76	73	75	76	76	78	80	80	78	77	76	77
Charleston, S. C.:													
6:48 a. m.	84	82	82	82	80	82	83	86	88	87	82	83	84
10:48 a. m.	75	68	66	63	60	68	67	70	72	70	69	74	68
2:48 p. m.	70	64	63	62	58	68	67	68	70	67	64	68	66
6:48 p. m.	77	76	74	74	69	77	77	77	80	79	76	78	76
10:48 p. m.	81	81	79	81	79	84	84	85	85	84	80	80	82
Charlotte, N. C.:													
6:45 a. m.	81	79	76	77	76	79	79	80	83	84	80	78	79
10:45 a. m.	72	65	59	59	57	62	60	60	64	63	60	64	62
2:45 p. m.	65	57	51	52	50	57	53	52	55	55	53	56	55
6:45 p. m.	72	65	59	60	60	66	63	62	65	67	64	65	64
10:45 p. m.	76	71	67	69	72	77	76	73	75	76	71	71	73
Eastport, Me.:													
7:40 a. m.	78	78	76	76	78	77	81	82	83	81	78	78	79
11:40 a. m.	72	72	70	66	67	66	72	68	70	68	69	73	69
3:40 p. m.	71	70	68	65	66	64	69	66	67	68	68	74	68
7:40 p. m.	76	76	74	75	77	76	80	78	79	77	76	78	77
11:40 p. m.	78	76	75	78	82	83	86	84	84	80	78	79	80
Hatteras, N. C.:													
7:06 a. m.	87	83	82	83	84	84	85	85	85	84	81	84	84
11:06 a. m.	81	76	73	74	76	77	77	77	76	76	75	78	76
3:06 p. m.	81	74	73	73	74	75	75	76	74	75	74	78	75
7:06 p. m.	84	80	78	81	83	83	83	84	82	82	79	82	82
11:06 p. m.	85	80	80	84	86	88	88	86	84	84	82	84	84
Jacksonville, Fla.:													
6:42 a. m.	87	85	82	83	79	81	82	86	89	86	86	87	84
10:42 a. m.	72	66	62	61	59	66	65	66	67	65	66	71	66
2:42 p. m.	64	58	54	56	56	64	62	62	64	62	61	63	60
6:42 p. m.	76	72	68	69	69	77	76	78	78	78	76	76	74
10:42 p. m.	82	81	77	80	79	85	84	85	86	84	83	84	82
Key West, Fla.:													
6:41 a. m.	86	83	79	76	74	76	75	77	82	82	84	85	80
10:41 a. m.	76	72	66	64	65	66	64	66	70	74	75	76	70
2:41 p. m.	73	70	65	63	63	64	63	64	70	71	74	75	68
6:41 p. m.	82	77	74	73	72	73	72	73	77	78	80	81	76
10:41 p. m.	84	81	79	77	77	80	78	78	81	80	82	83	80
Lynchburg, Va.:													
6:52 a. m.	77	74	70	76	75	77	76	79	80	81	75	75	76
10:52 a. m.	65	61	53	55	55	59	55	55	55	60	57	60	58
2:52 p. m.	59	53	47	49	49	57	50	49	48	54	51	53	52
6:52 p. m.	70	64	57	56	60	67	62	62	68	69	66	65	64
10:52 p. m.	75	72	67	70	75	80	80	78	77	78	73	71	75
Mount Washington, N. H. (elevation 6,279 feet):													
7:23 a. m.	88	88	90	89	89	86	92	89	86	88	90	87	88
11:23 a. m.	87	88	91	88	87	85	90	88	86	88	87	88	88
3:23 p. m.	87	89	92	88	84	82	88	86	85	88	86	87	87
7:23 p. m.	86	89	91	90	87	86	90	90	86	89	88	88	88
11:23 p. m.	87	89	91	91	90	89	94	92	88	89	89	89	90
New Haven, Conn.:													
7:16 a. m.	79	79	76	74	75	77	80	83	84	82	78	81	79
11:16 a. m.	70	69	60	59	59	60	63	66	64	65	63	69	64
3:16 p. m.	66	64	58	52	57	58	59	60	61	62	61	66	60
7:16 p. m.	74	73	69	66	66	67	71	73	75	74	71	74	71
11:16 p. m.	76	77	75	73	78	80	82	83	83	80	76	77	78

TABLE 2.—*Average monthly values of the relative humidity in the United States at 7ª, 11ª, 5P, 7P, and 11P (Washington time) for the period September, 1881, to July, 1886, inclusive*—Continued.

Atlantic Coast district—Continued.

Corresponding local time.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
New York, N. Y.:	*Per ct.*	*Per ct.*	*Per ct.*	*Per ct.*	*Per ct.*	*Per ct.*	*Per ct.*	*Per ct.*	*Per ct.*	*Per ct.*	*Per ct.*	*Per ct.*	*Per ct.*
7:12 a. m.	81	82	77	75	75	78	78	80	82	82	78	81	79
11:12 a. m.	78	76	69	62	63	64	63	65	65	67	65	74	68
3:12 p. m.	73	71	65	60	59	61	58	59	60	61	63	69	63
7:12 p. m.	79	81	71	67	68	68	72	71	73	72	71	75	72
11:12 p. m.	80	80	74	72	75	75	79	78	80	77	75	76	77
Norfolk, Va.:													
7:03 a. m.	86	78	75	78	79	78	80	83	85	85	80	79	80
11:03 a. m.	75	67	60	62	62	61	64	64	67	68	65	67	65
3:03 p. m.	70	62	56	57	58	58	58	62	61	64	58	64	61
7:03 p. m.	75	70	67	68	69	71	74	75	76	77	72	70	72
11:03 p. m.	78	75	71	74	79	82	83	84	84	82	76	76	79
Philadelphia, Pa.:													
7:08 a. m.	77	77	73	78	82	79	79	83	83	82	76	78	79
11:08 a. m.	72	72	64	66	69	64	62	67	64	68	66	70	67
3:08 p. m.	70	67	60	63	66	59	57	62	57	61	62	66	62
7:08 p. m.	74	71	66	71	72	67	67	73	70	72	70	73	70
11:08 p. m.	76	74	71	77	81	77	79	82	79	80	73	77	77
Portland, Me.:													
7:27 a. m.	76	74	71	68	72	72	78	79	79	79	78	78	75
11:27 a. m.	71	67	60	59	63	62	67	67	67	66	66	70	65
3:27 p. m.	68	66	58	54	58	58	62	62	65	64	65	70	62
7:27 p. m.	72	71	64	65	67	67	73	72	75	74	72	74	70
11:27 p. m.	74	72	70	68	73	74	78	79	80	77	75	76	75
Savannah, Ga.:													
6:44 a. m.	79	76	75	78	75	81	79	83	87	85	79	78	80
10:44 a. m.	70	64	58	59	56	65	63	66	68	67	62	66	64
2:44 p. m.	62	56	50	54	52	61	60	61	63	60	53	58	58
6:44 p. m.	70	66	64	65	65	73	72	74	76	75	68	68	70
10:44 p. m.	75	74	70	74	76	82	80	82	83	82	74	73	77
Washington, D. C.:													
7:00 a. m.	84	82	80	78	78	79	79	82	84	85	81	83	81
11:00 a. m.	76	70	62	60	61	61	58	62	63	66	66	70	65
3:00 p. m.	70	63	57	52	55	56	53	56	55	58	60	64	58
7:00 p. m.	77	73	65	63	65	66	65	70	74	74	72	74	70
11:00 p. m.	81	78	71	74	77	78	79	81	78	82	78	77	78
Wilmington, N. C.:													
6:56 a. m.	80	80	77	77	80	83	85	85	87	84	79	78	81
10:56 a. m.	71	64	57	55	56	65	66	68	70	67	61	66	64
2:56 p. m.	65	59	54	54	55	62	65	66	68	63	56	61	61
6:56 p. m.	73	69	65	69	69	75	77	76	78	76	70	70	72
10:56 p. m.	76	75	73	77	80	83	84	84	84	82	76	74	79

Gulf district.

Brownsville, Tex.:													
5:38 a. m.	80	89	92	92	92	92	93	93	93	92	90	91	92
9:38 a. m.													
1:38 p. m.	67	64	67	62	64	64	60	55	61	65	65	66	63
5:38 p. m.													
9:38 p. m.	87	88	89	88	89	86	87	84	87	88	86	88	87
Galveston, Tex.:													
5:49 a. m.	87	86	84	85	83	82	81	82	80	82	82	83	83
9:49 a. m.	84	80	77	75	72	72	70	71	73	74	76	79	75
1:49 p. m.	80	76	72	72	67	67	66	65	67	68	70	74	70
5:49 p. m.	82	79	78	76	72	69	70	66	71	73	74	70	74
9:49 p. m.	85	82	83	82	80	78	78	76	76	78	77	80	79
Mobile, Ala.:													
6:16 a. m.	86	85	84	85	84	87	88	90	88	86	86	86	86
10:16 a. m.	74	69	66	65	61	68	66	68	68	66	68	71	68
2:16 p. m.	67	61	58	59	54	61	63	61	58	57	60	65	60
6:16 p. m.	77	70	70	69	63	69	71	70	72	71	73	75	71
10:16 p. m.	82	78	78	80	77	83	82	83	80	80	80	81	80
Montgomery, Ala.:													
6:23 a. m.	84	81	82	82	80	85	85	90	86	84	85	83	84
10:23 a. m.	73	65	62	60	57	66	65	67	64	62	62	68	64
2:23 p. m.	64	52	49	47	47	56	55	56	52	50	51	57	53
6:23 p. m.	70	61	59	57	54	65	65	67	64	63	66	68	63
10:23 p. m.	77	71	70	71	70	80	80	80	75	74	76	76	75
New Orleans, La.:													
6:08 a. m.	80	80	80	83	81	83	83	85	83	84	79	81	82
10:08 a. m.	74	68	66	64	61	65	64	65	66	68	66	71	66
2:08 p. m.	66	57	57	59	56	63	61	61	60	60	58	63	60
6:08 p. m.	71	66	65	67	64	69	69	69	70	69	68	71	68
10:08 p. m.	76	74	75	77	77	80	78	79	79	79	75	76	77
Palestine, Tex.:													
5:46 a. m.	80	79	79	85	87	89	91	87	88	87	79	77	84
9:46 a. m.	72	69	66	70	70	71	70	66	69	73	70	70	69
1:46 p. m.	57	56	53	57	58	59	58	57	54	55	55	56	56
5:46 p. m.	64	60	55	59	61	61	63	55	60	64	62	61	61
9:46 p. m.	73	68	67	74	76	80	79	74	76	78	71	70	74
Pensacola, Fla.:													
6:19 a. m.	82	81	82	84	82	84	86	88	86	83	79	81	83
10:19 a. m.	74	70	65	68	64	70	70	71	70	68	65	73	69
2:19 p. m.	69	65	62	65	61	68	69	69	66	64	62	69	66
6:19 p. m.	75	74	73	73	71	75	74	74	73	72	71	75	73
10:19 p. m.	79	77	78	81	78	83	81	82	81	76	75	79	79

TABLE 2.—*Average monthly values of the relative humidity in the United States at 7ª, 11ª, 3ᵖ, 7ᵖ, and 11ᵖ (Washington time) for the period September, 1881, to July, 1886, inclusive*—Continued.

Gulf district—Continued.

Corresponding local time.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
Shreveport, La.:	*Per ct.*	*Per ct.*	*Per ct.*	*Per ct.*	*Per ct.*	*Per ct.*	*Per ct.*	*Per ct.*	*Per ct.*	*Per ct.*	*Per ct.*	*Per ct.*	*Per ct.*
5:54 a. m.	81	81	81	83	84	86	87	88	86	89	86	81	84
9:54 a. m.	75	71	66	67	63	66	66	65	63	67	70	70	67
1:54 p. m.	65	59	53	53	50	54	50	49	49	54	56	58	54
5:54 p. m.	69	63	57	55	53	55	55	56	59	65	67	65	60
9:54 p. m.	74	72	69	72	74	77	77	76	75	80	78	73	75
Vicksburg, Miss.:													
6:05 a. m.	80	79	75	78	79	85	86	88	86	87	81	78	80
10:05 a. m.	73	66	60	61	61	64	64	68	62	66	65	66	64
2:05 p. m.	68	58	52	54	54	58	59	56	55	58	56	58	58
6:05 p. m.	71	61	55	60	61	66	67	66	67	69	64	64	64
10:05 p. m.	74	67	61	68	71	79	81	79	77	78	71	70	72

Ohio Valley and Great Lakes region.

Alpena, Mich.:													
6:34 a. m.	79	78	80	79	76	79	82	86	85	86	85	84	82
10:34 a. m.	76	74	72	69	65	68	66	70	68	72	79	78	71
2:34 p. m.	75	72	70	65	65	67	65	68	64	67	76	76	69
6:34 p. m.	77	78	76	70	70	72	71	72	75	76	81	81	75
10:34 p. m.	79	79	79	77	78	82	82	82	82	81	84	82	81
Buffalo, N. Y.:													
6:53 a. m.	87	84	80	79	78	79	81	82	83	82	81	82	82
10:53 a. m.	83	80	77	71	70	70	74	70	69	70	74	78	74
2:53 p. m.	83	78	75	68	69	66	70	66	64	67	72	77	71
6:53 p. m.	85	83	79	74	75	71	73	72	72	75	78	81	76
10:53 p. m.	86	84	81	77	79	80	79	79	80	79	79	81	80
Chattanooga, Tenn.:													
6:27 a. m.	82	79	76	79	81	86	87	91	90	89	83	80	84
10:27 a. m.	74	68	62	59	61	67	65	70	70	69	68	68	67
2:27 p. m.	69	60	52	50	52	60	56	61	59	59	57	58	58
6:27 p. m.	72	65	56	57	59	68	64	72	71	71	65	64	65
10:27 p. m.	78	72	65	69	74	82	82	85	83	82	75	72	76
Chicago, Ill.:													
6:18 a. m.	78	77	77	78	75	78	76	79	77	80	79	80	78
10:18 a. m.	75	73	69	68	65	69	66	67	65	70	74	76	70
2:18 p. m.	73	70	66	65	62	65	61	61	60	66	69	74	66
6:18 p. m.	76	73	71	70	63	68	64	67	67	73	73	78	70
10:18 p. m.	78	75	73	74	72	77	74	75	73	76	75	78	75
Cincinnati, Ohio.:													
6:30 a. m.	80	80	76	76	76	78	78	79	81	84	81	80	79
10:30 a. m.	73	70	65	58	57	62	56	58	59	66	69	72	64
2:30 p. m.	72	66	57	52	50	55	48	50	52	57	64	68	58
6:30 p. m.	76	70	62	58	55	60	53	56	58	68	70	74	63
10:30 p. m.	78	75	70	69	71	75	70	72	73	77	75	78	74
Cleveland, Ohio.:													
6:41 a. m.	85	84	82	76	76	76	77	80	79	80	79	83	80
10:41 a. m.	80	78	73	67	67	64	64	65	62	64	70	78	69
2:41 p. m.	78	74	71	64	65	61	62	63	60	63	67	74	67
6:41 p. m.	80	78	74	66	66	64	62	66	64	69	71	78	70
10:41 p. m.	82	81	77	71	74	75	73	76	74	74	75	81	76
Columbus, Ohio.:													
6:36 a. m.	80	78	76	76	77	78	80	81	82	84	81	80	79
10:36 a. m.	75	73	67	63	63	64	61	61	62	68	70	73	67
2:36 p. m.	71	67	61	56	56	59	54	53	52	60	62	68	60
6:36 p. m.	75	73	65	62	63	65	60	61	63	69	69	73	66
10:36 p. m.	77	77	71	70	73	76	73	73	74	77	73	76	74
Detroit, Mich.:													
6:36 a. m.	79	78	80	75	75	78	79	81	80	80	76	80	78
10:36 a. m.	74	73	71	64	65	67	64	69	66	69	71	74	69
2:36 p. m.	71	70	66	58	60	61	58	61	58	61	66	72	63
6:36 p. m.	76	74	72	64	65	64	62	67	66	69	72	77	69
10:36 p. m.	77	77	76	70	71	74	73	74	75	75	76	79	75
Duluth, Minn.:													
6:00 a. m.	82	80	78	77	72	77	76	82	83	80	83	81	79
10:00 a. m.	73	68	67	67	62	66	67	75	72	73	74	73	70
2:00 p. m.	67	64	64	64	56	63	62	68	67	65	71	70	65
6:00 p. m.	73	69	66	63	61	63	63	72	67	72	76	74	68
10:00 p. m.	78	76	73	71	66	75	73	78	77	74	80	78	75
Erie, Pa.:													
6:48 a. m.	82	82	81	75	73	73	74	77	77	79	77	80	78
10:48 a. m.	79	74	72	68	67	66	67	66	65	67	70	76	70
2:48 p. m.	77	74	69	65	63	62	64	65	64	67	70	75	68
6:48 p. m.	81	78	75	70	68	68	66	71	71	76	76	79	73
10:48 p. m.	80	79	76	75	73	77	75	76	74	78	76	80	77
Escanaba, Mich.:													
6:20 a. m.	80	78	79	77	73	76	78	84	86	84	84	82	80
10:20 a. m.	73	72	69	64	60	64	65	70	71	71	76	77	69
2:20 p. m.	72	67	64	66	58	59	62	65	66	66	72	75	66
6:20 p. m.	76	75	72	67	61	64	67	73	74	75	77	78	72
10:20 p. m.	78	78	77	74	72	76	77	82	82	78	79	80	78
Grand Haven, Mich.:													
6:23 a. m.	83	83	82	75	74	77	80	86	83	84	80	82	81
10:23 a. m.	79	76	72	61	65	68	72	72	70	72	74	80	72
2:23 p. m.	78	77	73	61	63	65	69	70	66	69	71	79	70
6:23 p. m.	79	80	76	65	65	68	71	73	72	74	75	81	73
10:23 p. m.	81	80	79	69	73	77	79	81	78	80	78	82	78

TABLE 2.—*Average monthly values of the relative humidity in the United States at 7ª, 11ª, 3P, 7P, and 11P (Washington time) for the period September, 1881, to July, 1886, inclusive*—Continued.

Ohio Valley and Great Lakes region—Continued.

Corresponding local time.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
Indianapolis, Ind.:	*Per ct.*	*Per ct.*	*Per ct.*	*Per ct.*	*Per ct.*	*Per ct.*	*Per ct.*	*Per ct.*	*Per ct.*	*Per ct.*	*Per ct.*	*Per ct.*	*Per ct.*
6:24 a. m.	82	81	74	72	75	77	77	80	80	84	80	82	79
10:24 a. m.	77	73	64	57	58	62	59	61	61	67	69	74	65
2:24 p. m.	71	67	54	52	51	54	50	52	52	58	61	68	58
6:24 p. m.	75	72	60	58	58	60	57	61	61	69	69	74	64
10:24 p. m.	80	78	70	67	69	73	73	74	72	77	74	77	74
Knoxville, Tenn.:													
6:32 a. m.	86	85	79	81	84	87	89	91	38	92	87	86	86
10:32 a. m.	78	70	62	59	61	66	66	65	62	67	67	72	66
2:32 p. m.	69	60	52	48	50	58	56	54	50	54	54	60	55
6:32 p. m.	76	66	57	56	57	65	64	66	64	69	66	70	65
10:32 p. m.	83	74	70	70	75	81	84	83	79	83	78	79	78
Louisville, Ky.:													
6:25 a. m.	79	76	74	73	79	82	82	82	84	84	78	76	79
10:25 a. m.	75	70	61	57	61	67	63	62	64	69	69	71	66
2:25 p. m.	74	64	54	50	54	60	55	52	53	60	58	65	58
6:25 p. m.	75	67	59	56	61	66	60	62	63	70	65	69	64
10:25 p. m.	77	72	66	66	74	80	78	76	76	79	71	72	74
Marquette, Mich.:													
6:19 a. m.	75	74	76	72	68	72	73	79	80	77	80	78	75
10:19 a. m.	69	70	67	64	59	61	64	68	67	65	72	72	66
2:19 p. m.	67	65	65	60	57	61	60	66	64	63	69	70	64
6:19 p. m.	72	74	71	66	60	66	67	71	72	71	75	74	70
10:19 p. m.	74	74	75	71	69	74	76	78	78	75	77	77	75
Milwaukee, Wis.:													
6:17 a. m.	84	83	81	79	75	80	80	85	84	83	82	83	82
10:17 a. m.	80	79	75	69	64	70	68	71	70	72	74	80	73
2:17 p. m.	77	76	71	66	62	68	63	67	66	67	70	77	69
6:17 p. m.	81	79	76	69	65	69	67	72	73	74	75	81	73
10:17 p. m.	82	82	79	75	72	79	77	81	79	78	78	82	79
Nashville, Tenn.:													
6:21 a. m.	84	81	78	78	80	83	85	87	85	88	85	83	83
10:21 a. m.	79	72	66	58	59	65	62	63	64	71	72	73	67
2:21 p. m.	73	63	56	51	52	59	56	56	56	59	59	63	59
6:21 p. m.	76	68	60	56	57	66	63	63	64	67	65	69	64
10:21 p. m.	79	76	68	68	72	81	80	79	77	79	76	77	76
Oswego, N. Y.:													
7:02 a. m.	76	79	78	74	75	78	79	78	80	78	73	75	77
11:02 a. m.	72	76	72	68	66	69	70	66	66	68	68	72	69
3:02 p. m.	72	73	71	65	62	62	65	64	64	65	68	71	67
7:02 p. m.	74	76	74	68	67	65	66	68	70	71	72	74	70
11:02 p. m.	74	77	75	73	73	77	79	76	75	74	71	74	75
Pittsburgh, Pa.:													
6:48 a. m.	83	82	80	75	77	81	82	84	84	83	78	84	81
10:48 a. m.	78	74	66	54	55	56	55	55	57	64	66	73	63
2:48 p. m.	75	68	61	50	49	51	49	50	51	54	62	70	58
6:48 p. m.	78	75	67	59	58	60	58	58	60	67	69	75	65
10:48 p. m.	80	79	72	68	72	75	74	76	76	78	73	79	75
Port Huron, Mich.:													
6:38 a. m.	84	84	85	82	81	81	83	85	87	88	86	85	84
10:38 a. m.	79	78	75	70	69	69	66	67	67	71	78	80	72
2:38 p. m.	78	78	74	67	64	65	62	63	62	67	74	79	69
6:38 p. m.	83	83	79	72	72	73	69	69	71	77	81	84	76
10:38 p. m.	86	85	83	79	79	80	81	80	81	82	84	86	82
Rochester, N. Y.:													
6:57 a. m.	85	84	83	79	77	80	84	85	82	84	80	84	82
10:57 a. m.	80	79	76	67	65	65	65	67	64	71	74	80	71
2:57 p. m.	79	77	73	63	61	60	60	61	60	66	71	77	67
6:57 p. m.	83	81	77	70	68	67	67	70	69	76	78	83	74
10:57 p. m.	84	84	81	74	74	75	77	78	76	79	80	84	79
Sandusky, Ohio:													
6:38 a. m.	78	78	78	75	75	75	74	77	77	79	78	78	77
10:38 a. m.	74	73	70	65	66	65	63	66	65	69	70	73	68
2:38 p. m.	73	70	67	62	60	60	56	62	61	64	64	71	64
6:38 p. m.	77	76	71	67	66	66	62	66	68	72	72	74	70
10:38 p. m.	77	76	74	72	72	74	71	75	73	75	74	76	74
Toledo, Ohio:													
6:34 a. m.	78	79	75	74	74	75	74	81	81	83	79	78	78
10:34 a. m.	75	72	67	61	60	61	59	66	66	71	70	74	67
2:34 p. m.	70	67	61	56	54	56	53	60	59	64	66	70	61
6:34 p. m.	74	72	66	61	61	62	60	68	69	72	71	74	68
10:34 p. m.	76	75	72	70	70	73	72	77	76	78	75	77	74
Mississippi Valley.													
Cairo, Ill.:													
6:12 a. m.	83	78	76	75	79	84	85	85	84	87	81	79	81
10:12 a. m.	77	71	65	63	62	69	67	67	68	72	70	72	69
2:12 p. m.	74	66	59	54	55	64	60	59	58	60	60	64	61
6:12 p. m.	76	68	61	58	60	69	67	68	70	73	68	69	67
10:12 p. m.	79	73	67	66	74	81	81	79	81	82	74	74	76
Davenport, Iowa:													
6:06 a. m.	72	73	72	74	76	81	79	82	77	82	77	76	77
10:06 a. m.	61	62	61	60	61	66	62	66	66	69	68	67	64
2:06 p. m.	59	59	57	54	54	58	53	56	54	60	60	62	57
6:06 p. m.	63	64	61	58	58	62	58	63	62	67	66	67	62
10:06 p. m.	68	70	67	68	73	77	74	77	74	75	72	71	72

TABLE 2.—*Average monthly values of the relative humidity in the United States at 7ª, 11ª, 3P, 7P, and 11P (Washington time) for the period September, 1881, to July, 1886, inclusive*—Continued.

Mississippi Valley—Continued.

Corresponding local time.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
Des Moines, Iowa:	*Per ct.*	*Per ct.*	*Per ct.*	*Per ct.*	*Per ct.*	*Per ct.*	*Per ct.*	*Per ct.*	*Per ct.*	*Per ct.*	*Per ct.*	*Per ct.*	*Per ct.*
5:54 a. m.	71	73	74	77	80	84	83	85	84	83	78	77	79
9:54 a. m.	67	66	69	63	33	67	64	67	67	72	70	71	67
1:54 p. m.	65	63	61	54	53	57	53	55	54	60	60	65	58
5:54 p. m.	69	68	65	58	56	60	56	61	63	69	68	72	64
9:54 p. m.	71	72	73	71	72	77	77	78	78	77	75	75	75
Dubuque, Iowa:													
6:05 a. m.	64	69	72	73	73	76	79	83	84	82	77	73	75
10:05 a. m.	59	65	63	57	54	61	60	63	64	67	67	68	62
2:05 p. m.	58	59	56	49	48	54	50	53	53	56	57	63	55
6:05 p. m.	61	65	61	54	52	56	54	60	65	66	66	68	61
10:05 p. m.	64	68	68	66	69	75	73	77	78	75	73	71	71
Fort Smith, Ark.:													
5:51 a. m.	84	81	82	83	86	88	89	89	88	89	82	80	85
9:51 a. m.	76	70	67	58	68	68	66	68	66	70	65	70	68
1:51 p. m.	66	58	53	48	54	56	55	53	50	55	48	56	54
5:51 p. m.	68	63	59	50	56	61	58	58	58	66	60	64	60
9:51 p. m.	83	75	69	66	80	83	82	80	77	83	74	75	77
Keokuk, Iowa:													
6:02 a. m.	80	79	78	79	78	81	78	80	82	85	81	82	80
10:02 a. m.	76	74	68	63	60	66	60	59	64	71	72	77	68
2:02 p. m.	72	67	62	56	54	59	54	52	52	59	62	71	60
6:02 p. m.	78	72	66	62	60	66	59	58	60	67	69	77	66
10:02 p. m.	79	78	74	72	72	78	73	73	73	75	75	80	76
La Crosse, Wis.:													
6:03 a. m.	75	74	74	70	67	74	77	80	82	78	75	76	75
10:03 a. m.	70	67	67	59	56	63	65	68	71	68	69	71	66
2:03 p. m.	68	65	65	52	48	56	58	59	60	60	64	68	60
6:03 p. m.	71	69	69	56	52	61	61	65	69	66	68	71	65
10:03 p. m.	72	70	71	64	63	71	74	76	77	71	72	73	71
Little Rock, Ark.:													
6:00 a. m.	83	83	77	82	85	90	89	89	88	90	84	79	85
10:00 a. m.	76	72	66	67	68	71	70	72	72	77	72	70	71
2:00 p. m.	68	65	57	55	59	63	60	60	59	64	60	61	61
6:00 p. m.	71	69	59	59	61	67	65	66	66	72	65	62	65
10:00 p. m.	77	75	70	72	78	84	82	82	80	82	76	73	78
Memphis, Tenn.:													
6:08 a. m.	84	82	74	77	78	83	82	82	84	87	82	80	81
10:08 a. m.	79	71	62	60	59	65	62	61	65	69	68	70	66
2:08 p. m.	72	63	54	50	51	57	56	54	54	59	57	61	57
6:08 p. m.	75	65	58	55	56	64	63	63	65	70	63	63	63
10:08 p. m.	76	70	64	65	71	79	78	75	76	78	71	71	73
St. Louis, Mo.:													
6:07 a. m.	82	80	80	80	84	86	84	88	83	86	81	81	83
10:07 a. m.	77	76	73	67	69	71	66	71	66	75	73	75	72
2:07 p. m.	72	70	63	59	61	62	58	62	54	66	67	69	64
6:07 p. m.	76	75	68	64	66	69	62	68	61	74	73	75	69
10:07 p. m.	78	78	73	73	78	82	78	80	72	80	75	76	77
St. Paul, Minn.:													
5:56 a. m.	84	79	78	76	78	83	85	86	86	83	79	78	81
9:56 a. m.	75	71	68	63	60	66	67	70	70	71	73	74	69
1:56 p. m.	70	63	60	55	51	59	58	59	58	61	66	70	61
5:56 p. m.	79	70	66	59	54	61	61	62	66	69	74	75	66
9:56 p. m.	83	76	75	69	69	78	79	78	78	75	76	78	76
Springfield, Ill.:													
6:10 a. m.	78	75	72	73	74	79	76	81	80	81	76	77	77
10:10 a. m.	73	70	63	62	62	66	61	63	63	70	69	71	66
2:10 p. m.	65	64	57	53	54	59	52	53	51	61	59	64	58
6:10 p. m.	71	68	61	58	58	64	55	60	60	69	66	70	63
10:10 p. m.	75	72	67	67	70	76	71	74	72	76	71	74	72

Plains region.

Bismarck, N. Dak.:													
5:26 a. m.	85	87	84	85	80	83	80	84	81	81	85	78	83
9:26 a. m.	82	82	78	71	59	64	64	64	63	70	82	76	71
1:26 p. m.	77	75	72	55	47	50	48	49	49	53	71	69	60
5:26 p. m.	81	80	76	62	49	56	53	50	53	61	78	75	64
9:26 p. m.	81	85	82	74	66	73	67	70	68	72	81	75	74
Deadwood, S. Dak.:													
5:13 a. m.	80	79	80	81	79	77	75	76	73	71	73	76	77
9:13 a. m.													
1:13 p. m.	70	67	67	67	62	60	54	52	52	55	61	63	61
5:13 p. m.													
9:13 p. m.	78	77	78	78	75	76	71	71	68	76	71	73	74
Dodge City, Kans.:													
5:28 a. m.	81	80	78	77	81	85	81	85	79	83	80	80	81
9:28 a. m.	77	71	62	49	58	64	61	69	62	64	63	72	64
1:28 p. m.	65	55	47	41	48	52	48	51	42	49	44	57	50
5:28 p. m.	74	67	55	46	50	56	52	58	53	59	56	71	58
9:28 p. m.	78	75	66	62	72	75	69	72	67	73	69	75	71
Fort Bennett, S. Dak.:													
5:26 a. m.	78	80	80	81	82	85	82	83	80	80	84	83	82
9:26 a. m.													
1:26 p. m.	70	75	60	49	50	52	49	44	43	48	59	66	55
5:26 p. m.													
9:26 p. m.	78	75	76	70	72	74	72	61	66	69	75	79	72

TABLE 2.—*Average monthly values of the relative humidity in the United States at 7ª, 11ª, 3P, 7P, and 11P (Washington time) for the period September, 1881, to July, 1886, inclusive*—Continued.

Plains region—Continued.

Corresponding local time.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
Fort Buford, N. Dak.:	*Per ct.*	*Per ct.*	*Per ct.*	*Per ct.*	*Per ct.*	*Per ct.*	*Per ct.*	*Per ct.*	*Per ct.*	*Per ct.*	*Per ct.*	*Per ct.*	*Per ct.*
5:12 a. m.	81	79	81	82	76	79	79	81	79	82	85	83	81
9:12 a. m.													
1:12 p. m.	76	70	69	52	43	47	44	45	47	54	69	74	58
5:12 p. m.													
9:12 p. m.	81	77	81	71	61	66	64	64	65	73	81	80	72
Fort Concho, Tex.:													
5:27 a. m.	85	84	84	78	84	84	80	81	86	88	86	85	84
9:27 a. m.													
1:27 p. m.	56	56	49	40	46	44	39	41	51	58	54	52	49
5:27 p. m.													
9:27 p. m.	79	76	72	63	72	69	61	63	75	81	77	78	72
Fort Davis, Tex.:													
5:12 a. m.	73	67	60	61	60	64	70	74	79	75	73	73	70
9:12 a. m.													
1:12 p. m.	37	31	32	24	25	31	35	41	42	35	39	36	34
5:12 p. m.													
9:12 p. m.	55	48	49	42	43	52	55	63	64	61	58	59	54
Fort Elliott, Tex.:													
5:27 a. m.	72	70	72	69	75	78	74	73	77	70	68	73	73
9:27 a. m.													
1:27 p. m.	51	48	41	40	44	51	45	55	42	51	40	51	47
5:27 p. m.													
9:27 p. m.	67	65	60	57	64	70	62	62	64	72	64	69	65
Fort Sill, Okla.:													
5:34 a. m.	82	80	78	79	80	82	80	84	84	89	84	86	82
9:34 a. m.													
1:34 p. m.	61	54	48	40	44	51	42	44	46	52	48	54	49
5:34 p. m.													
9:34 p. m.	75	72	67	63	67	72	67	69	71	76	72	77	71
Fort Stockton, Tex.:													
5:17 a. m.	79	72	71	67	74	81	79	79	86	85	78	79	78
9:17 a. m.													
1:17 p. m.	49	41	39	33	39	45	42	47	51	50	45	45	44
5:17 p. m.													
9:17 p. m.	70	64	62	53	63	67	61	64	70	75	71	72	66
Huron, S. Dak.:													
5:36 a. m.	70	74	76	79	82	85	87	88	85	82	75	72	80
9:36 a. m.	65	67	72	63	65	70	70	71	68	68	67	65	68
1:36 p. m.	64	66	66	58	57	60	58	57	52	52	59	62	59
5:36 p. m.	65	69	70	62	60	61	61	62	62	63	68	67	64
9:36 p. m.	66	72	75	75	77	81	82	81	76	75	74	71	75
Leavenworth, Kans.:													
5:48 a. m.	80	77	76	77	79	82	80	84	80	83	79	80	80
9:48 a. m.	73	69	63	62	62	67	65	67	64	69	67	72	67
1:48 p. m.	67	62	53	52	52	57	54	55	49	55	54	63	56
5:48 p. m.	71	67	58	55	55	60	57	59	56	65	63	70	61
9:48 p. m.	78	73	70	68	72	78	75	76	70	75	71	75	73
Moorhead, Minn.:													
5:41 a. m.	90	88	84	84	80	83	86	87	87	88	88	88	86
9:41 a. m.													
1:41 p. m.	82	76	74	59	49	53	58	52	52	58	72	77	64
5:41 p. m.													
9:41 p. m.	87	80	81	76	71	76	79	78	76	78	83	85	79
North Platte, Nebr.:													
5:25 a. m.	78	78	78	78	82	84	83	85	81	81	78	79	80
9:25 a. m.	74	73	68	64	62	65	64	68	62	66	67	73	67
1:25 p. m.	68	63	55	53	52	54	52	54	46	51	50	61	55
5:25 p. m.	73	68	58	56	51	54	54	58	48	57	60	69	59
9:25 p. m.	77	76	72	71	72	75	71	74	68	72	73	76	73
Omaha, Nebr.:													
5:44 a. m.	76	76	77	79	81	83	80	87	83	82	80	78	80
9:44 a. m.	73	71	69	64	64	67	64	70	67	70	71	73	69
1:44 p. m.	68	62	59	53	52	56	54	59	55	58	59	66	58
5:44 p. m.	72	70	63	55	53	57	56	63	63	66	66	71	63
9:44 p. m.	74	74	72	68	69	75	73	79	75	73	73	74	73
Yankton, S. Dak.:													
5:38 a. m.	74	75	76	80	80	84	82	83	82	82	80	79	80
9:38 a. m.	70	71	70	67	62	65	66	69	64	66	71	73	68
1:38 p. m.	66	64	62	56	50	55	60	59	51	52	59	64	58
5:38 p. m.	72	70	66	57	54	56	58	61	59	61	70	72	63
9:38 p. m.	75	75	74	73	74	77	76	79	76	74	77	76	76

Rocky Mountains and Plateau region.

Boise, Idaho.:													
4:24 a. m.	89	87	80	77	75	72	61	61	70	80	87	90	77
8:24 a. m.	85	82	71	64	57	52	43	45	56	71	79	86	66
12:24 p. m.	77	69	53	50	44	41	31	33	40	53	61	73	52
4:24 p. m.	74	61	50	48	41	38	30	30	38	55	62	74	50
8:24 p. m.	84	79	65	62	58	51	39	42	58	65	75	84	64
Cheyenne, Wyo.:													
5:09 a. m.	64	64	67	68	72	74	66	69	59	64	60	65	66
9:09 a. m.	60	60	53	55	51	51	38	43	38	49	47	58	50
1:09 p. m.	51	51	40	45	44	43	30	32	28	35	36	47	40
5:09 p. m.	62	57	48	52	48	47	34	38	35	44	48	60	48
9:09 p. m.	64	65	61	65	66	62	55	58	50	57	56	63	60

TABLE 2.—*Average monthly values of the relative humidity in the United States at 7ª, 11ª, 3P, 7P, and 11P (Washington time) for the period September, 1881, to July, 1886, inclusive*—Continued.

Rocky Mountains and Plateau region—Continued.

Corresponding local time.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
Dayton, Wash.:	*Per ct.*	*Per ct.*	*Per ct.*	*Per ct.*	*Per ct.*	*Per ct.*	*Per ct.*	*Per ct.*	*Per ct.*	*Per ct.*	*Per ct.*	*Per ct.*	*Per ct.*
4:16 a. m.	85	80	79	78	74	76	68	64	71	80	86	86	77
8:16 a. m.													
12:16 p. m.	74	67	54	47	45	44	34	31	44	56	71	77	54
4:16 p. m.													
8:16 p. m.	84	80	73	65	63	62	48	46	63	74	85	83	69
Denver, Colo.:													
5:08 a. m.	64	66	68	71	70	71	65	67	61	64	64	66	66
9:08 a. m.	56	56	52	53	47	46	42	47	41	49	48	54	49
1:08 p. m.	48	45	38	40	37	36	29	33	29	36	36	44	38
5:08 p. m.	53	48	39	44	39	40	36	36	31	39	42	50	41
9:08 p. m.	61	60	56	60	56	56	51	51	46	54	56	61	56
El Paso, Tex.:													
5:02 a. m.	66	60	54	44	47	49	62	69	70	72	72	68	63
9:02 a. m.	62	50	44	29	31	34	46	49	51	56	61	58	48
1:02 p. m.	37	31	24	17	19	20	31	36	38	38	38	38	32
5:02 p. m.	41	29	25	16	18	20	28	29	33	40	44	38	30
9:02 p. m.	52	42	35	27	30	32	47	53	57	56	54	53	45
Fort Apache, Ariz.:													
4:48 a. m.	75	76	77	70	61	57	71	81	75	72	72	76	72
8:48 a. m.													
12:48 p. m.	56	48	44	29	27	26	33	44	34	36	40	51	39
4:48 p. m.													
8:48 p. m.	74	68	67	50	45	43	56	70	62	59	64	71	61
Fort Assinaboine, Mont.:													
4:49 a. m.	65	69	71	74	69	67	67	69	70	71	68	63	69
8:49 a. m.													
12:49 p. m.	63	63	63	48	39	41	37	39	42	52	56	58	50
4:49 p. m.													
8:49 p. m.	65	68	68	61	56	57	53	53	58	64	63	61	61
Fort Benton, Mont.:													
4:45 a. m.	72	69	72	70	72	70	66	67	73	73	68	67	70
8:45 a. m.													
12:45 p. m.	63	61	54	48	48	46	33	35	43	50	52	55	49
4:45 p. m.													
8:45 p. m.	69	69	69	63	62	60	51	49	60	65	63	65	62
Fort Custer, Mont.:													
4:58 a. m.	80	78	79	80	78	83	70	67	72	75	70	79	77
8:58 a. m.													
12:58 p. m.	74	72	62	46	40	49	36	34	39	46	54	60	51
4:58 p. m.													
8:58 p. m.	78	76	74	62	59	66	52	50	55	63	72	74	65
Fort Grant, Ariz.:													
4:48 a. m.	66	64	57	46	37	38	48	65	54	54	58	63	54
8:48 a. m.													
12:48 p. m.	47	44	37	25	24	25	32	40	34	34	38	42	35
4:48 p. m.													
8:48 p. m.	55	52	50	35	31	32	42	55	44	43	45	52	45
Helena, Mont.:													
4:40 a. m.	75	73	73	71	67	69	64	60	66	73	70	71	69
8:40 a. m.													
12:40 p. m.	68	66	60	53	45	49	43	41	51	57	62	65	55
4:40 p. m.													
8:40 p. m.	71	72	66	63	55	58	51	50	58	64	68	69	62
Lewiston, Idaho:													
4:20 a. m.	75	73	74	74	77	74	64	61	70	80	82	81	74
8:20 a. m.													
12:20 p. m.	70	67	55	46	42	43	34	34	46	57	67	72	53
4:20 p. m.													
8:20 p. m.	75	72	68	58	54	53	39	36	52	70	78	79	61
Pikes Peak, Colo. (elevation, 14,134 feet):													
5:07 a. m.	82	81	83	85	84	81	74	79	77	80	76	78	80
9:07 a. m.	79	78	78	81	82	78	66	70	72	80	75	76	76
1:07 p. m.	79	78	80	84	84	79	64	69	68	78	74	78	76
5:07 p. m.	81	80	82	84	84	80	69	74	73	81	76	80	79
9:07 p. m.	82	82	84	84	86	84	76	80	78	82	78	81	81
Prescott, Ariz.:													
4:38 a. m.	77	77	78	71	61	55	67	76	66	70	77	78	71
8:38 a. m.	69	66	62	47	34	32	44	52	42	47	58	68	52
12:38 p. m.	48	44	43	35	27	24	34	41	29	30	34	42	36
4:38 p. m.	50	44	43	33	26	23	34	40	29	31	39	48	37
8:38 p. m.	68	64	63	51	42	38	49	59	49	52	61	67	55
Salt Lake City, Utah:													
4:40 a. m.	62	64	63	66	61	58	54	51	49	58	59	64	59
8:40 a. m.	59	59	57	59	53	51	48	45	43	52	54	60	53
12:40 p. m.	55	55	48	49	45	42	39	32	32	43	47	56	45
4:40 p. m.	52	57	49	51	46	43	39	34	33	46	53	60	47
8:40 p. m.	59	61	57	60	53	50	45	41	40	52	57	61	53
Santa Fe, N. Mex.:													
5:04 a. m.	71	68	63	56	51	48	61	71	65	62	64	67	62
9:04 a. m.	64	54	50	43	35	35	45	51	47	46	56	57	49
1:04 p. m.	51	41	34	30	25	23	35	44	36	36	43	45	37
5:04 p. m.	61	43	33	30	25	23	35	42	36	40	53	55	40
9:04 p. m.	66	60	50	42	38	36	51	61	53	52	57	62	52
Spokane, Wash.:													
4:19 a. m.	83	84	84	79	74	73	68	68	77	81	84	82	78
8:19 a. m.													
12:19 p. m.	81	79	69	59	47	50	41	42	53	68	77	78	62
4:19 p. m.													
8:19 p. m.	83	82	77	71	61	58	50	49	65	77	82	79	70

TABLE 2.—*Average monthly values of the relative humidity in the United States at 7a, 11a, 3p, 7p, and 11p (Washington time) for the period September, 1881, to July, 1886, inclusive*—Continued.

Rocky Mountains and Plateau region—Continued.

Corresponding local time.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
West Las Animas, Colo.:	*Per ct.*	*Per ct.*	*Per ct.*	*Per ct.*	*Per ct.*	*Per ct.*	*Per ct.*	*Per ct.*	*Per ct.*	*Per ct.*	*Per ct.*	*Per ct.*	*Per ct.*
5:15 a. m.	88	83	74	72	76	78	75	80	68	79	78	82	78
9:15 a. m.	76	69	51	47	49	55	48	54	48	56	56	71	57
1:15 p. m.	56	48	33	32	35	38	33	36	31	39	35	50	39
5:15 p. m.	68	52	34	33	39	40	37	39	34	46	45	61	44
9:15 p. m.	80	70	53	52	58	52	55	58	53	65	62	73	61
Winnemucca, Nev.:													
4:17 a. m.	71	70	66	70	59	58	40	38	49	62	73	77	61
8:17 a. m.	68	66	56	53	41	39	28	27	36	52	65	72	50
12:17 p. m.	54	49	36	35	27	26	16	15	23	35	48	60	35
4:17 p. m.	54	47	34	34	26	23	14	13	19	32	49	59	34
8:17 p. m.	63	60	50	51	40	35	22	20	32	50	64	70	46
Yuma, Ariz.:													
4:30 a. m.	64	65	60	67	64	67	67	70	67	65	62	51	65
8:30 a. m.													
12:30 p. m.	39	36	34	29	25	28	31	37	31	34	35	39	33
4:30 p. m.													
8:30 p. m.	56	50	48	41	38	43	46	49	47	51	52	58	48

Pacific coast.

Los Angeles, Cal.:													
4:15 a. m.	72	76	83	85	87	86	87	85	82	80	75	74	81
8:15 a. m.	67	69	73	68	69	68	68	64	66	68	63	69	68
12:15 p. m.	51	51	56	56	52	51	47	47	47	50	44	51	50
4:15 p. m.	60	60	66	60	59	57	54	55	58	62	57	61	59
8:15 p. m.	74	75	81	80	80	80	80	79	80	80	72	74	78
Olympia, Wash.:													
3:56 a. m.	88	88	89	89	89	86	86	86	90	89	89	88	88
7:56 a. m.	87	86	87	85	80	75	75	82	87	88	89	89	84
11:56 a. m.	82	79	74	70	63	61	59	62	71	76	82	82	71
3:56 p. m.	80	77	68	58	58	56	53	55	64	73	81	81	67
7:56 p. m.	85	85	81	76	69	64	62	66	81	86	88	86	77
Portland, Oreg.:													
3:57 a. m.	87	85	86	85	83	83	83	85	88	91	90	89	86
7:57 a. m.	86	84	84	76	70	68	68	74	81	88	90	88	80
11:57 a. m.	77	76	63	56	51	54	52	52	60	70	76	78	64
3:57 p. m.	77	73	58	53	47	49	47	44	55	69	77	80	61
7:57 p. m.	83	80	74	69	62	64	61	63	74	83	84	85	74
Red Bluff, Cal.:													
3:59 a. m.	86	82	78	81	71	63	53	52	55	72	83	87	72
7:59 a. m.	87	80	71	66	52	45	37	37	46	66	79	88	63
11:59 a. m.	66	55	49	48	37	31	24	23	28	45	56	69	44
3:59 p. m.	61	51	43	44	34	26	19	19	26	40	54	61	40
7:59 p. m.	77	70	62	63	49	38	26	27	39	57	72	78	55
Roseburg, Oreg.:													
3:55 a. m.	89	88	87	87	86	86	83	81	86	89	89	91	87
7:55 a. m.	89	88	85	77	69	68	67	69	75	86	89	91	79
11:55 a. m.	77	73	62	57	50	49	45	46	51	67	76	81	61
3:55 p. m.	74	65	52	50	44	43	36	35	43	60	72	79	54
7:55 p. m.	84	80	70	66	59	58	50	52	63	80	85	87	69
Sacramento, Cal.:													
4:02 a. m.	88	87	82	85	78	78	72	73	73	82	84	90	81
8:02 a. m.	89	84	78	74	66	62	60	63	66	76	84	89	74
12:02 p. m.	76	68	57	55	49	47	43	44	43	54	63	77	57
4:02 p. m.	71	60	51	54	45	43	39	38	38	48	59	74	52
8:02 p. m.	82	75	69	71	64	59	54	55	56	69	72	84	68
San Diego, Cal.:													
4:20 a. m.	74	77	83	84	84	85	86	86	84	82	75	75	81
8:20 a. m.	67	70	76	73	74	74	73	74	74	70	70	68	72
12:20 p. m.	57	58	63	62	64	63	63	64	62	61	54	56	61
4:20 p. m.	60	54	67	68	67	66	64	67	71	66	69	67	66
8:20 p. m.	76	76	79	78	79	80	80	81	81	79	78	76	78
San Francisco, Cal.:													
3:58 a. m.	84	82	82	83	84	87	88	91	90	88	85	86	86
7:58 a. m.	83	79	79	76	75	77	80	85	84	85	83	84	81
11:58 a. m.	72	65	64	65	62	66	68	75	66	69	69	74	68
3:58 p. m.	70	62	65	62	65	66	68	73	69	71	69	73	68
7:58 p. m.	79	75	76	77	78	81	82	87	82	81	78	80	80

TABLE 3.—*Average monthly values of the relative humidity in the United States, at 2 p. m., local time, for the 5-year period 1876 to 1880, inclusive.*

Stations.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Year.
	Per ct.	*Per ct.*	*Per ct.*	*Per ct.*	*Per ct.*	*Per ct.*	*Per ct.*	*Per ct.*	*Per ct.*	*Per ct.*	*Per ct.*	*Per ct.*	*Per ct.*
Atlantic coast.													
Albany, N. Y.	75	73	68	54	50	56	54	53	58	60	68	72	62
Atlantic City, N. J.	76	72	70	68	69	74	75	74	71	66	68	73	71
Augusta, Ga.	57	50	43	48	44	48	49	54	53	55	58	58	52
Baltimore, Md.	64	58	57	49	48	52	51	56	56	52	58	61	55
Boston, Mass.	61	59	62	56	54	58	58	59	57	53	59	58	58
Charleston, S. C.	60	56	53	55	59	59	62	64	63	64	62	60	60
Eastport, Me.	75	73	72	65	68	69	69	70	68	67	70	70	70
Hatteras, N. C.	73	70	74	74	74	76	75	75	73	70	71	73	73
Jacksonville, Fla.	54	54	46	48	52	54	55	57	63	61	58	55	55
Key West, Fla.	72	71	64	61	67	66	65	66	69	71	71	73	68
Lynchburg, Va.	55	42	42	40	44	49	46	53	52	46	50	54	48
New Haven, Conn.	66	64	62	53	54	60	60	63	65	60	61	65	61
New York, N. Y.	66	62	59	52	50	56	54	58	59	55	60	62	58
Norfolk, Va.	64	56	56	50	51	52	54	62	62	58	61	66	58
Philadelphia, Pa.	69	61	60	49	46	53	52	57	56	53	61	67	57
Portland, Me.	67	64	66	56	56	61	59	62	63	59	63	65	62
Savannah, Ga.	56	54	48	50	54	57	60	63	64	61	58	57	57
Washington, D. C.	64	55	53	45	47	52	51	57	57	52	58	64	55
Wilmington, N. C.	55	47	47	48	54	57	60	63	60	56	56	56	55
Burlington, Vt.	69	68	65	57	52	56	54	58	60	62	67	72	62
Gulf district.													
Galveston, Tex.	73	69	70	67	66	65	64	65	66	64	70	74	68
Mobile, Ala.	64	56	55	58	56	58	61	65	58	60	61	64	60
Montgomery, Ala.	50	49	45	47	47	50	51	54	51	54	51	60	52
New Orleans, La.	60	58	54	54	57	59	60	60	60	59	58	62	58
Shreveport, La.	62	53	49	53	52	53	54	51	53	51	53	58	54
Ohio Valley and Great Lakes region.													
Alpena, Mich.	73	68	68	59	58	63	63	62	65	67	76	78	66
Buffalo, N. Y.	76	72	69	63	59	63	62	59	62	62	69	77	66
Chicago, Ill.	71	66	66	58	58	62	63	61	59	59	66	70	63
Cincinnati, Ohio.	61	56	52	43	44	51	52	52	53	49	58	64	53
Cleveland, Ohio.	72	70	71	58	55	60	63	61	60	59	68	77	64
Detroit, Mich.	68	62	64	48	46	54	54	54	58	57	64	71	58
Duluth, Minn.	65	65	62	60	62	66	61	59	62	65	71	71	64
Erie, Pa.	74	71	73	60	54	58	59	60	64	63	70	77	65
Escanaba, Mich.	65	63	59	57	57	63	62	60	63	65	71	71	63
Indianapolis, Ind.	61	56	56	45	47	56	53	54	53	51	60	64	54
Knoxville, Tenn.	62	52	46	44	44	51	53	53	50	49	54	65	52
Louisville, Ky.	60	53	50	43	42	50	49	50	52	49	57	63	51
Marquette, Mich.	68	65	62	58	53	60	57	57	58	62	67	68	61
Milwaukee, Wis.	75	69	70	61	61	66	66	62	61	62	70	74	66
Nashville, Tenn.	66	55	50	49	45	53	54	53	53	50	55	63	54
Oswego, N. Y.	71	69	66	63	58	65	63	63	62	61	67	72	65
Pittsburgh, Pa.	64	60	58	47	41	48	48	49	55	53	63	69	55
Port Huron, Mich.	72	71	68	60	55	58	61	57	60	59	73	77	64
Rochester, N. Y.	75	74	69	56	48	53	52	53	57	59	69	76	62
Toledo, Ohio.	70	66	66	53	53	57	58	58	59	58	67	74	61
Mississippi Valley.													
Cairo, Ill.	64	54	52	48	52	58	60	58	57	53	58	64	56
Davenport, Iowa.	67	59	58	48	49	56	54	55	53	52	54	66	56
Dubuque, Iowa.	64	59	56	44	44	54	52	51	52	52	63	67	55
Keokuk, Iowa.	68	61	57	50	53	57	55	54	52	51	60	66	57
La Crosse, Wis.	64	65	60	49	49	59	60	58	57	57	68	68	60
Memphis, Tenn.	65	56	49	48	50	54	57	54	57	54	55	64	55
St. Paul, Minn.	69	64	59	43	46	53	54	51	53	52	62	66	56
Plains region.													
Bismarck, N. Dak.	68	70	69	47	49	50	46	42	40	45	61	75	55
Dodge City, Kans.	54	49	43	34	42	40	41	43	36	36	48	54	43
North Platte, Nebr.	49	42	42	32	42	40	44	40	37	33	38	52	41
Omaha, Nebr.	62	56	53	41	48	54	54	53	52	48	57	65	54
Rocky Mountains and Plateau region.													
Cheyenne, Wyo.	43	34	36	29	33	25	23	26	22	29	40	45	32
Denver, Colo.	37	34	27	26	26	22	24	24	23	25	32	43	29
El Paso, Tex.	39	32	24	23	24	22	35	31	31	30	35	37	30
Salt Lake City, Utah.	54	48	35	29	26	19	16	18	18	28	38	56	32
Santa Fe, N. Mex.	42	37	26	26	20	21	35	38	29	30	36	35	33
Pacific coast.													
Portland, Oreg.	70	70	64	53	54	50	49	49	55	65	69	73	60
San Diego, Cal.	60	63	65	61	63	66	65	66	65	60	53	55	62
San Francisco, Cal.	63	63	61	61	59	60	66	66	62	58	57	62	62

TABLE 4.

REMARKS.—In Table 4, which follows, the average bihourly relative humidities and temperatures are from self-recording hygrographs and thermographs running on local standard time.

The "vapor pressure ratios" here presented represent the quotient from dividing the actual vapor pressure at the hour stated by the mean of the vapor pressures at 8ª and 8ᵖ (75th meridian time), for the corresponding month and years, as explained on p. 10 of the text.

The bihourly vapor pressures are determined from the bihourly relative humidities and the bihourly temperatures. The daily march of the vapor pressure is thus presented both directly, and also by the "vapor pressure ratios" in terms of the observed vapor pressures at 8ª and 8ᵖ, 75th meridian time.

TABLE 4.—*The mean bihourly relative humidity, air temperature (°F.), vapor pressure (inches), and "vapor pressure ratio" at selected stations for the period stated under each.*

Element.	A. M.						P. M.					
	2	4	6	8	10	NOON.	2	4	6	8	10	12
Boise, Idaho. (Records cover period, May, 1911, to May, 1915, inclusive.)												
January:												
Relative humidity	79	80	81	81	78	72	68	67	69	75	76	77
Vapor pressure	0.123	0.123	0.124	0.122	0.125	0.133	0.136	0.137	0.134	0.130	0.129	0.126
Temperature	28	28	28	28	29	32	34	35	33	32	30	29
Vapor pressure ratio	0.953	0.953	0.961	0.945	0.969	1.031	1.054	1.062	1.039	1.008	1.000	0.977
February:												
Relative humidity	74	76	77	77	72	64	58	56	56	64	68	71
Vapor pressure	0.143	0.141	0.139	0.134	0.140	0.147	0.148	0.148	0.146	0.149	0.149	0.147
Temperature	34	32	32	31	34	38	40	42	40	38	36	35
Vapor pressure ratio	1.007	0.993	0.979	0.944	0.986	1.035	1.042	1.042	1.028	1.049	1.049	1.035
March:												
Relative humidity	67	69	72	71	61	51	46	42	42	50	56	62
Vapor pressure	0.154	0.150	0.150	0.151	0.159	0.158	0.156	0.152	0.148	0.154	0.156	0.156
Temperature	38	37	36	36	41	46	49	51	50	46	44	41
Vapor pressure ratio	1.034	1.007	1.007	1.014	1.067	1.060	1.047	1.020	0.994	1.034	1.047	1.047
April:												
Relative humidity	63	66	69	66	56	46	40	38	38	45	51	58
Vapor pressure	0.192	0.188	0.188	0.197	0.204	0.198	0.190	0.182	0.177	0.188	0.191	0.192
Temperature	46	44	43	45	51	56	59	60	59	56	52	49
Vapor pressure ratio	1.055	1.033	1.033	1.082	1.120	1.087	1.044	1.000	0.973	1.033	1.049	1.054
May:												
Relative humidity	64	68	71	64	53	44	38	36	36	44	51	58
Vapor pressure	0.236	0.232	0.234	0.248	0.249	0.244	0.231	0.226	0.216	0.234	0.235	0.238
Temperature	51	49	47	52	57	63	65	67	66	62	55	54
Vapor pressure ratio	1.049	1.031	1.040	1.103	1.107	1.085	1.027	1.004	0.960	1.040	1.044	1.057
June:												
Relative humidity	61	66	70	62	53	44	39	35	34	41	49	57
Vapor pressure	0.297	0.296	0.300	0.322	0.330	0.316	0.296	0.277	0.267	0.285	0.292	0.299
Temperature	59	56	55	60	66	70	73	74	74	70	65	62
Vapor pressure ratio	1.046	1.043	1.057	1.134	1.162	1.113	1.043	0.975	0.940	1.004	1.029	1.053
July:												
Relative humidity	49	55	59	53	42	34	29	26	24	29	35	43
Vapor pressure	0.300	0.300	0.300	0.331	0.338	0.327	0.306	0.281	0.263	0.290	0.294	0.296
Temperature	65	62	60	65	73	78	82	84	84	80	75	66
Vapor pressure ratio	1.064	1.064	1.064	1.173	1.199	1.124	1.085	0.996	0.933	1.029	1.007	1.050
August:												
Relative humidity	46	51	55	52	40	32	26	22	22	27	32	40
Vapor pressure	0.267	0.268	0.268	0.292	0.304	0.296	0.274	0.256	0.244	0.256	0.254	0.262
Temperature	64	60	58	62	72	78	82	84	84	78	72	67
Vapor pressure ratio	1.043	1.047	1.047	1.141	1.188	1.157	1.070	1.000	0.953	1.000	0.992	1.023
September:												
Relative humidity	48	53	56	57	46	37	31	27	28	34	40	44
Vapor pressure	0.202	0.202	0.202	0.210	0.230	0.229	0.222	0.209	0.201	0.201	0.205	0.203
Temperature	55	52	50	51	59	66	70	72	71	65	60	57
Vapor pressure ratio	1.000	1.000	1.000	1.040	1.139	1.135	1.099	1.036	0.995	0.995	1.015	1.005
October:												
Relative humidity	66	68	71	72	61	50	43	40	43	52	58	62
Vapor pressure	0.196	0.192	0.192	0.192	0.207	0.208	0.202	0.196	0.194	0.197	0.196	0.195
Temperature	45	44	43	42	48	54	58	60	57	52	49	47
Vapor pressure ratio	1.015	0.995	0.995	0.995	1.073	1.078	1.047	1.015	1.005	1.020	1.015	1.010
November:												
Relative humidity	68	70	72	74	69	58	51	50	54	61	64	66
Vapor pressure	0.161	0.158	0.155	0.153	0.164	0.170	0.168	0.169	0.167	0.165	0.164	0.160
Temperature	39	37	36	35	39	44	48	48	46	42	41	40
Vapor pressure ratio	1.000	0.981	0.963	0.950	1.019	1.056	1.044	1.050	1.038	1.026	1.019	0.994
December:												
Relative humidity	80	81	83	82	80	72	66	64	70	75	78	80
Vapor pressure	0.113	0.110	0.111	0.106	0.113	0.123	0.128	0.130	0.126	0.122	0.118	0.118
Temperature	26	25	25	24	26	31	34	35	32	29	28	27
Vapor pressure ratio	0.959	0.932	0.941	0.899	0.959	1.042	1.086	1.102	1.069	1.033	1.000	1.000

TABLE 4.—*The mean bihourly relative humidity, air temperature (°F.), vapor pressure (inches), and "vapor pressure ratio" at selected stations for the period stated under each*—Continued.

Element.	A. M.						P. M.					
	2	4	6	8	10	NOON.	2	4	6	8	10	12
Burlington, Vt. (Records cover period July, 1911, to April, 1916, inclusive.)												
January:												
Relative humidity	77	78	78	79	75	72	70	71	73	75	76	78
Vapor pressure	0.091	0.091	0.090	0.090	0.093	0.094	0.097	0.096	0.095	0.094	0.094	0.094
Temperature	18	18	18	17	20	21	23	23	21	20	19	19
Vapor pressure ratio	0.989	0.989	0.978	0.978	1.011	1.022	1.054	1.043	1.033	1.022	1.022	1.022
February:												
Relative humidity	76	77	77	77	71	66	64	66	69	72	73	74
Vapor pressure	0.073	0.073	0.071	0.071	0.075	0.077	0.077	0.078	0.073	0.073	0.073	0.072
Temperature	14	14	13	13	16	19	20	20	17	16	13	13
Vapor pressure ratio	1.014	1.014	0.986	0.986	1.042	1.069	1.069	1.083	1.014	1.014	1.014	1.000
March:												
Relative humidity	76	77	77	78	67	65	62	62	66	69	71	74
Vapor pressure	0.103	0.102	0.100	0.103	0.109	0.114	0.116	0.117	0.113	0.110	0.108	0.107
Temperature	23	22	21	22	27	30	31	31	29	27	26	24
Vapor pressure ratio	0.972	0.962	0.943	0.972	1.028	1.075	1.094	1.104	1.066	1.038	1.019	1.009
April:												
Relative humidity	74	75	75	70	61	56	53	54	58	63	67	71
Vapor pressure	0.182	0.178	0.176	0.188	0.192	0.194	0.191	0.192	0.192	0.189	0.189	0.185
Temperature	38	37	37	41	44	47	49	49	47	44	42	40
Vapor pressure ratio	0.968	0.947	0.936	1.000	1.021	1.032	1.016	1.021	1.021	1.005	1.005	0.984
May:												
Relative humidity	74	77	74	69	59	54	51	51	55	60	67	73
Vapor pressure	0.264	0.262	0.259	0.278	0.279	0.277	0.269	0.274	0.269	0.269	0.277	0.274
Temperature	49	47	48	52	56	59	61	61	59	56	53	50
Vapor pressure ratio	0.964	0.956	0.945	1.015	1.018	1.011	0.982	1.000	0.982	0.982	1.011	1.000
June:												
Relative humidity	79	79	75	68	58	52	48	50	54	62	70	76
Vapor pressure	0.353	0.339	0.343	0.364	0.361	0.356	0.361	0.365	0.365	0.366	0.368	0.364
Temperature	55	54	56	60	64	68	70	70	68	64	60	58
Vapor pressure ratio	0.967	0.929	0.940	0.977	0.989	0.975	0.989	1.000	1.000	1.003	1.008	0.977
July:												
Relative humidity	83	84	81	73	64	56	53	54	59	67	76	81
Vapor pressure	0.455	0.440	0.446	0.471	0.477	0.467	0.460	0.467	0.477	0.474	0.477	0.468
Temperature	61	60	61	66	71	74	75	75	72	69	65	63
Vapor pressure ratio	0.964	0.932	0.945	0.998	1.011	0.989	0.975	0.989	1.011	1.004	1.011	0.992
August:												
Relative humidity	86	86	86	78	67	61	56	57	65	72	79	83
Vapor pressure	0.451	0.440	0.437	0.468	0.468	0.464	0.453	0.463	0.470	0.463	0.459	0.450
Temperature	60	59	59	64	69	71	73	73	70	66	63	61
Vapor pressure ratio	0.968	0.944	0.938	1.004	1.004	0.996	0.972	0.994	1.000	0.994	0.985	0.966
September:												
Relative humidity	84	85	86	80	67	60	56	58	64	72	78	82
Vapor pressure	0.363	0.359	0.355	0.379	0.377	0.370	0.365	0.369	0.366	0.374	0.373	0.365
Temperature	53	52	51	56	61	64	66	66	62	59	56	55
Vapor pressure ratio	0.965	0.955	0.944	1.008	1.003	0.984	0.971	0.981	0.973	0.995	0.992	0.971
October:												
Relative humidity	78	80	81	79	69	64	61	62	67	71	74	76
Vapor pressure	0.261	0.258	0.259	0.273	0.280	0.282	0.282	0.282	0.275	0.269	0.265	0.262
Temperature	47	46	45	47	52	54	56	55	52	50	48	47
Vapor pressure ratio	0.963	0.952	0.956	1.007	1.033	1.041	1.041	1.041	1.015	0.993	0.978	0.967
November:												
Relative humidity	71	73	74	74	67	63	61	64	66	68	69	69
Vapor pressure	0.152	0.154	0.154	0.156	0.156	0.160	0.161	0.160	0.155	0.152	0.149	0.150
Temperature	35	35	35	35	38	40	41	39	38	37	36	35
Vapor pressure ratio	0.987	1.000	1.000	1.013	1.013	1.039	1.045	1.039	1.006	0.987	0.968	0.974
December:												
Relative humidity	75	77	77	78	75	71	69	70	73	73	73	74
Vapor pressure	0.114	0.113	0.112	0.112	0.119	0.121	0.122	0.119	0.117	0.116	0.114	0.114
Temperature	26	25	25	25	27	29	30	29	28	27	26	26
Vapor pressure ratio	1.000	0.991	0.982	0.982	1.044	1.061	1.070	1.044	1.026	1.018	1.000	1.000
Chicago, Ill. (Records cover period May, 1911, to April, 1916, inclusive.)												
January:												
Relative humidity	74	75	76	77	74	70	69	70	72	72	72	73
Vapor pressure	0.112	0.112	0.114	0.115	0.118	0.118	0.121	0.127	0.126	0.123	0.117	0.114
Temperature	24	24	23	24	25	27	28	29	28	27	26	24
Vapor pressure ratio	0.933	0.933	0.950	0.958	0.983	0.983	1.008	1.058	1.050	1.025	0.975	0.950
February:												
Relative humidity	73	74	73	73	70	65	64	65	67	68	70	72
Vapor pressure	0.106	0.101	0.101	0.101	0.104	0.109	0.111	0.114	0.114	0.113	0.110	0.106
Temperature	23	22	22	21	25	27	28	29	28	27	25	25
Vapor pressure ratio	0.991	0.944	0.944	0.944	0.972	1.019	1.037	1.065	1.065	1.056	1.028	0.991
March:												
Relative humidity	72	72	74	72	68	65	64	64	67	70	70	71
Vapor pressure	0.136	0.132	0.132	0.136	0.140	0.145	0.150	0.152	0.152	0.151	0.147	0.143
Temperature	31	31	30	31	34	36	37	37	36	35	34	33
Vapor pressure ratio	0.951	0.923	0.923	0.951	0.979	1.014	1.049	1.063	1.063	1.056	1.028	1.000

TABLE 4.—*The mean bihourly relative humidity, air temperature (°F.), vapor pressure (inches), and "vapor pressure ratio" at selected stations for the period stated under each*—Continued.

Element.	A. M.						P. M.					
	2	4	6	8	10	NOON.	2	4	6	8	10	12
Chicago, Ill.—Continued.												
April:												
Relative humidity	70	72	73	69	63	61	58	58	62	64	67	68
Vapor pressure	0.236	0.236	0.233	0.243	0.249	0.250	0.250	0.253	0.254	0.250	0.245	0.242
Temperature	47	46	45	48	51	53	54	54	53	51	49	49
Vapor pressure ratio	0.963	0.963	0.951	0.992	1.016	1.020	1.020	1.033	1.037	1.020	1.000	0.988
May:												
Relative humidity	72	73	73	69	63	61	59	60	62	66	69	70
Vapor pressure	0.334	0.329	0.329	0.345	0.361	0.361	0.355	0.354	0.350	0.348	0.348	0.344
Temperature	56	55	55	58	62	64	64	64	62	60	59	58
Vapor pressure ratio	0.974	0.959	0.959	1.006	1.052	1.052	1.035	1.032	1.020	1.015	1.015	1.003
June:												
Relative humidity	71	73	72	68	64	62	58	59	62	66	67	70
Vapor pressure	0.449	0.442	0.438	0.457	0.475	0.477	0.475	0.474	0.480	0.477	0.469	0.464
Temperature	65	64	64	67	70	72	73	73	71	69	68	66
Vapor pressure ratio	0.970	0.955	0.946	0.987	1.026	1.030	1.026	1.024	1.037	1.030	1.013	1.002
July:												
Relative humidity	73	74	74	69	64	62	61	61	63	68	70	72
Vapor pressure	0.543	0.536	0.530	0.547	0.560	0.561	0.564	0.562	0.569	0.574	0.566	0.561
Temperature	71	69	69	72	75	77	78	77	76	74	73	72
Vapor pressure ratio	0.978	0.966	0.955	0.986	1.009	1.011	1.016	1.013	1.025	1.034	1.020	1.011
August:												
Relative humidity	75	77	77	73	68	66	65	65	67	71	72	74
Vapor pressure	0.528	0.517	0.510	0.532	0.546	0.555	0.554	0.555	0.565	0.566	0.553	0.541
Temperature	68	67	67	69	73	74	75	74	74	72	71	70
Vapor pressure ratio	0.972	0.952	0.939	0.980	1.006	1.022	1.020	1.022	1.041	1.042	1.018	0.996
September:												
Relative humidity	70	77	78	74	67	64	63	64	68	71	73	75
Vapor pressure	0.473	0.462	0.457	0.465	0.476	0.474	0.469	0.479	0.491	0.490	0.488	0.477
Temperature	64	63	63	65	68	70	70	70	69	68	66	65
Vapor pressure ratio	0.994	0.971	0.960	0.977	1.000	0.996	0.985	1.006	1.032	1.029	1.025	1.002
October:												
Relative humidity	74	76	77	75	69	65	63	64	67	70	71	73
Vapor pressure	0.312	0.308	0.305	0.312	0.328	0.334	0.336	0.337	0.339	0.335	0.323	0.315
Temperature	53	52	51	52	57	59	60	60	58	57	55	54
Vapor pressure ratio	0.966	0.954	0.944	0.966	1.012	1.034	1.040	1.043	1.050	1.037	1.000	0.975
November:												
Relative humidity	70	72	73	73	68	64	60	62	65	66	68	70
Vapor pressure	0.194	0.194	0.192	0.196	0.203	0.208	0.211	0.214	0.214	0.208	0.202	0.199
Temperature	41	40	39	40	42	45	47	47	46	44	43	42
Vapor pressure ratio	0.960	0.960	0.950	0.970	1.005	1.070	1.045	1.060	1.060	1.030	1.000	0.985
December:												
Relative humidity	75	76	76	77	73	70	67	68	70	71	72	74
Vapor pressure	0.141	0.139	0.138	0.137	0.140	0.142	0.146	0.148	0.148	0.146	0.143	0.140
Temperature	31	30	30	30	31	33	35	35	34	33	32	31
Vapor pressure ratio	0.986	0.972	0.965	0.958	0.979	0.993	1.021	1.035	1.035	1.031	1.000	0.979
Columbus, Ohio. (Records cover period May, 1911, to March, 1916, inclusive.)												
January:												
Relative humidity	81	82	83	83	80	76	74	74	76	79	80	81
Vapor pressure	0.145	0.143	0.142	0.141	0.143	0.150	0.164	0.167	0.161	0.156	0.154	0.149
Temperature	29	28	27	28	31	33	34	34	33	31	30	29
Vapor pressure ratio	0.967	0.953	0.947	0.940	0.953	1.000	1.093	1.113	1.073	1.040	1.027	0.993
February:												
Relative humidity	78	79	81	79	73	69	67	66	70	72	74	77
Vapor pressure	0.112	0.110	0.109	0.113	0.119	0.128	0.133	0.134	0.130	0.126	0.120	0.117
Temperature	25	24	22	24	27	30	31	32	30	28	27	26
Vapor pressure ratio	0.933	0.917	0.908	0.942	0.992	1.067	1.108	1.117	1.083	1.050	1.000	0.975
March:												
Relative humidity	78	80	81	79	73	68	65	65	68	71	74	76
Vapor pressure	0.158	0.153	0.153	0.159	0.169	0.180	0.185	0.186	0.181	0.177	0.171	0.170
Temperature	33	32	31	33	36	40	42	42	40	38	36	36
Vapor pressure ratio	0.940	0.911	0.911	0.946	1.006	1.071	1.101	1.107	1.077	1.054	1.018	1.012
April:												
Relative humidity	75	76	78	72	64	59	55	55	59	64	68	72
Vapor pressure	0.262	0.251	0.248	0.268	0.288	0.294	0.280	0.287	0.284	0.270	0.272	0.267
Temperature	48	46	45	49	54	58	60	60	58	54	51	50
Vapor pressure ratio	0.970	0.930	0.919	0.993	1.067	1.089	1.070	1.063	1.052	1.033	1.007	0.989
May:												
Relative humidity	75	77	78	71	62	57	53	53	55	62	66	70
Vapor pressure	0.355	0.350	0.361	0.398	0.413	0.414	0.402	0.397	0.388	0.379	0.371	0.366
Temperature	57	55	56	61	67	70	71	71	69	65	62	59
Vapor pressure ratio	0.929	0.916	0.945	1.042	1.081	1.084	1.052	1.039	1.016	0.992	0.971	0.958
June:												
Relative humidity	75	77	77	69	61	56	53	52	56	62	67	71
Vapor pressure	0.454	0.446	0.459	0.506	0.532	0.527	0.521	0.509	0.497	0.490	0.481	0.466
Temperature	64	62	63	69	74	78	79	79	76	72	69	66
Vapor pressure ratio	0.930	0.914	0.941	1.037	1.090	1.080	1.068	1.043	1.018	1.004	0.986	0.955

TABLE 4.—*The mean bihourly relative humidity, air temperature (° F.), vapor pressure (inches), and "vapor pressure ratio" at selected stations for the period stated under each*—Continued.

Element.	A. M.						P. M.					
	2	4	6	8	10	NOON.	2	4	6	8	10	12
Columbus, Ohio—Continued.												
July:												
Relative humidity	78	81	80	74	62	55	51	51	55	62	69	74
Vapor pressure	0.541	0.533	0.565	0.606	0.619	0.600	0.575	0.567	0.556	0.553	0.551	0.550
Temperature	68	66	67	73	79	82	83	82	80	76	72	70
Vapor pressure ratio	0.949	0.935	0.991	1.063	1.086	1.053	1.009	0.995	0.975	0.970	0.967	0.965
August:												
Relative humidity	80	82	84	79	68	60	56	56	58	66	71	76
Vapor pressure	0.522	0.516	0.518	0.582	0.601	0.586	0.568	0.555	0.533	0.531	0.531	0.527
Temperature	66	65	65	70	75	78	80	80	77	73	70	70
Vapor pressure ratio	0.965	0.954	0.958	1.076	1.111	1.083	1.050	1.026	0.985	0.981	0.981	0.974
September:												
Relative humidity	80	82	83	79	68	61	57	57	62	68	74	77
Vapor pressure	0.451	0.445	0.437	0.491	0.517	0.519	0.509	0.491	0.479	0.477	0.467	0.458
Temperature	61	60	59	64	70	74	74	74	71	67	64	63
Vapor pressure ratio	0.958	0.945	0.928	1.042	1.098	1.102	1.081	1.042	1.017	1.013	0.992	0.972
October:												
Relative humidity	81	83	83	81	72	65	61	61	66	71	75	78
Vapor pressure	0.318	0.309	0.300	0.330	0.361	0.364	0.358	0.353	0.343	0.337	0.329	0.322
Temperature	51	50	49	52	58	61	63	62	59	57	54	52
Vapor pressure ratio	0.970	0.942	0.915	1.006	1.101	1.110	1.091	1.076	1.046	1.027	1.003	0.982
November:												
Relative humidity	75	77	79	78	71	65	62	62	66	70	72	74
Vapor pressure	0.195	0.189	0.185	0.195	0.214	0.223	0.227	0.219	0.213	0.210	0.203	0.197
Temperature	39	38	37	39	43	47	48	48	45	43	41	40
Vapor pressure ratio	0.970	0.940	0.920	0.970	1.065	1.109	1.129	1.090	1.060	1.045	1.010	0.980
December:												
Relative humidity	80	81	82	82	79	74	72	72	73	75	76	78
Vapor pressure	0.151	0.151	0.151	0.154	0.164	0.165	0.169	0.165	0.158	0.156	0.154	0.149
Temperature	31	31	30	31	34	35	37	36	35	34	33	32
Vapor pressure ratio	0.974	0.974	0.974	0.994	1.058	1.065	1.090	1.065	1.019	1.006	0.994	0.961
Fresno, Cal. (Records cover period May, 1912, to April, 1916, inclusive.)												
January:												
Relative humidity	86	86	86	85	79	70	63	63	72	78	82	85
Vapor pressure	0.245	0.237	0.229	0.229	0.247	0.258	0.255	0.255	0.261	0.264	0.263	0.253
Temperature	43	42	42	41	46	50	53	53	50	48	46	44
Vapor pressure ratio	0.996	0.963	0.931	0.931	1.004	1.049	1.037	1.037	1.061	1.073	1.069	1.028
February:												
Relative humidity	86	87	88	87	75	63	55	55	64	74	81	85
Vapor pressure	0.286	0.274	0.263	0.265	0.287	0.292	0.286	0.287	0.301	0.311	0.310	0.299
Temperature	47	46	44	45	51	57	60	60	57	54	52	47
Vapor pressure ratio	1.018	0.975	0.936	0.943	1.021	1.039	1.018	1.021	1.071	1.107	1.103	1.064
March:												
Relative humidity	83	84	85	79	63	51	44	44	51	63	72	79
Vapor pressure	0.308	0.295	0.280	0.291	0.310	0.304	0.294	0.296	0.312	0.336	0.339	0.328
Temperature	50	49	47	50	58	64	66	68	64	60	56	53
Vapor pressure ratio	1.041	0.997	0.946	0.983	1.047	1.027	0.993	1.000	1.054	1.135	1.145	1.108
April:												
Relative humidity	76	79	80	68	53	41	36	35	39	50	62	70
Vapor pressure	0.306	0.294	0.286	0.297	0.293	0.274	0.269	0.266	0.270	0.288	0.309	0.307
Temperature	53	51	49	55	63	68	71	72	70	64	60	56
Vapor pressure ratio	1.097	1.054	1.025	1.065	1.050	0.982	0.964	0.953	0.968	1.032	1.108	1.100
May:												
Relative humidity	67	72	74	60	47	38	32	30	32	40	52	60
Vapor pressure	0.316	0.311	0.314	0.328	0.325	0.308	0.289	0.277	0.270	0.290	0.315	0.318
Temperature	58	55	55	62	71	74	78	79	77	71	65	61
Vapor pressure ratio	1.078	1.061	1.072	1.120	1.109	1.051	0.986	0.947	0.922	0.990	1.075	1.078
June:												
Relative humidity	52	58	61	49	38	30	24	20	20	27	38	45
Vapor pressure	0.305	0.304	0.318	0.344	0.344	0.323	0.283	0.254	0.238	0.266	0.292	0.301
Temperature	64	60	61	69	76	82	86	88	86	79	72	67
Vapor pressure ratio	1.097	1.094	1.114	1.237	1.237	1.162	1.018	0.914	0.856	0.957	1.050	1.083
July:												
Relative humidity	47	52	54	46	36	27	22	18	18	25	34	42
Vapor pressure	0.332	0.335	0.330	0.365	0.378	0.361	0.325	0.298	0.286	0.310	0.341	0.337
Temperature	70	66	65	73	82	88	93	98	94	87	79	74
Vapor temperature ratio	1.064	1.074	1.058	1.170	1.212	1.125	1.042	0.952	0.917	0.994	1.093	1.080
August:												
Relative humidity	47	51	55	47	37	28	21	18	19	25	33	42
Vapor pressure	0.335	0.331	0.331	0.370	0.390	0.373	0.338	0.304	0.287	0.309	0.339	0.333
Temperature	70	67	65	72	81	89	94	97	94	86	77	74
Vapor pressure ratio	1.070	1.058	1.058	1.182	1.240	1.192	1.080	0.971	0.917	0.987	1.083	1.064
September:												
Relative humidity	54	58	62	54	41	31	25	22	24	30	39	47
Vapor pressure	0.311	0.308	0.304	0.338	0.347	0.333	0.307	0.285	0.275	0.282	0.303	0.306
Temperature	64	61	59	66	75	82	86	88	84	78	72	67
Vapor pressure ratio	1.061	1.051	1.037	1.129	1.184	1.137	1.048	0.973	0.939	0.962	1.034	1.044

TABLE 4.—*The mean bihourly relative humidity, air temperature (°F.), vapor pressure (inches), and "vapor pressure ratio" at selected stations for the period stated under each*—Continued.

Element.	A. M.						P. M.					
	2	4	6	8	10	NOON.	2	4	6	8	10	12
Fresno, Cal.—Continued.												
October:												
Relative humidity	56	60	63	57	43	33	28	26	30	36	44	51
Vapor pressure	0.250	0.247	0.243	0.258	0.271	0.264	0.254	0.238	0.237	0.239	0.246	0.246
Temperature	56	54	52	56	67	74	78	78	74	68	63	58
Vapor pressure ratio	1.037	1.025	1.008	1.071	1.124	1.095	1.054	0.988	0.983	0.992	1.021	1.021
November:												
Relative humidity	76	79	81	78	62	50	44	45	54	62	68	74
Vapor pressure	0.266	0.256	0.248	0.262	0.273	0.276	0.273	0.273	0.280	0.282	0.280	0.272
Temperature	49	47	45	47	55	62	66	65	61	57	54	50
Vapor pressure ratio	1.008	0.970	0.940	0.955	1.034	1.045	1.034	1.034	1.061	1.068	1.061	1.030
December:												
Relative humidity	84	85	86	86	77	66	59	58	69	76	81	84
Vapor pressure	0.225	0.218	0.210	0.210	0.228	0.238	0.236	0.234	0.244	0.247	0.246	0.234
Temperature	42	40	40	40	45	50	54	53	50	47	45	43
Vapor pressure ratio	0.996	0.965	0.929	0.929	1.009	1.053	1.044	1.035	1.080	1.093	1.088	1.035
Grand Rapids, Mich.												
(Records cover period July, 1912, to April, 1916, inclusive.)												
January:												
Relative humidity	85	85	86	86	84	78	77	78	80	83	84	85
Vapor pressure	0.130	0.129	0.130	0.135	0.137	0.136	0.137	0.135	0.133	0.134	0.133	0.132
Temperature	26	26	26	26	28	29	30	29	28	28	27	26
Vapor pressure ratio	0.977	0.970	0.977	1.015	1.030	1.023	1.030	1.015	1.000	1.008	1.000	0.992
February:												
Relative humidity	84	85	86	84	78	73	71	72	76	79	81	84
Vapor pressure	0.100	0.099	0.096	0.096	0.100	0.102	0.106	0.106	0.104	0.104	0.102	0.101
Temperature	20	20	20	20	22	25	26	26	24	22	22	21
Vapor pressure ratio	1.000	0.990	0.960	0.960	1.000	1.020	1.060	1.060	1.040	1.040	1.020	1.010
March:												
Relative humidity	82	84	85	79	70	65	63	64	71	74	78	80
Vapor pressure	0.135	0.130	0.130	0.132	0.139	0.142	0.142	0.147	0.147	0.145	0.143	0.140
Temperature	28	27	26	29	33	35	36	36	34	32	30	29
Vapor pressure ratio	0.978	0.942	0.942	0.957	1.007	1.029	1.029	1.065	1.065	1.050	1.036	1.015
April:												
Relative humidity	75	77	78	71	59	53	50	52	57	65	70	73
Vapor pressure	0.220	0.212	0.216	0.229	0.230	0.232	0.231	0.236	0.240	0.236	0.234	0.227
Temperature	43	42	42	46	51	54	56	55	53	49	46	44
Vapor pressure ratio	0.956	0.921	0.939	0.936	1.000	1.009	1.004	1.026	1.043	1.026	1.017	0.987
May:												
Relative humidity	79	80	79	68	57	53	50	51	56	66	72	77
Vapor pressure	0.300	0.297	0.289	0.300	0.308	0.311	0.306	0.318	0.321	0.323	0.319	0.311
Temperature	50	49	50	55	60	63	65	65	63	58	55	52
Vapor pressure ratio	0.974	0.964	0.938	0.974	1.000	1.010	0.994	1.032	1.042	1.049	1.036	1.010
June:												
Relative humidity	77	80	78	67	56	50	48	49	53	62	70	74
Vapor pressure	0.413	0.400	0.412	0.438	0.438	0.428	0.416	0.423	0.443	0.446	0.439	0.429
Temperature	60	58	60	66	71	74	76	75	73	68	65	62
Vapor pressure ratio	0.949	0.920	0.947	1.007	1.007	0.984	0.956	0.972	1.018	1.025	1.009	0.986
July:												
Relative humidity	82	84	82	68	58	53	51	52	55	66	73	78
Vapor presure	0.498	0.493	0.486	0.494	0.489	0.481	0.478	0.486	0.496	0.509	0.507	0.501
Temperature	66	63	63	70	74	77	78	78	76	72	68	67
Vapor pressure ratio	1.004	0.994	0.980	0.996	0.986	0.970	0.964	0.980	1.000	1.026	1.022	1.010
August:												
Relative humidity	82	84	84	73	60	54	52	53	61	72	78	81
Vapor pressure	0.474	0.471	0.462	0.476	0.479	0.474	0.480	0.481	0.509	0.511	0.504	0.492
Temperature	62	62	61	66	72	75	77	76	74	69	66	64
Vapor pressure ratio	0.967	0.961	0.943	0.971	0.978	0.967	0.980	0.982	1.039	1.043	1.029	1.004
September:												
Relative humidity	85	86	86	75	62	58	52	54	64	72	78	82
Vapor pressure	0.421	0.412	0.407	0.420	0.421	0.415	0.407	0.414	0.436	0.429	0.424	0.421
Temperature	58	57	56	61	67	70	72	70	67	63	60	58
Vapor pressure ratio	0.995	0.974	0.962	0.993	0.995	0.981	0.962	0.979	1.031	1.014	1.002	0.995
October:												
Relative humidity	84	84	85	80	67	60	56	59	68	76	79	83
Vapor pressure	0.299	0.294	0.289	0.298	0.305	0.303	0.302	0.306	0.318	0.315	0.307	0.304
Temperature	49	48	47	50	55	58	60	60	56	53	51	49
Vapor pressure ratio	0.980	0.964	0.948	0.977	1.000	0.993	0.990	1.003	1.043	1.033	1.006	0.997
November:												
Relative humidity	78	79	80	80	72	68	66	69	74	76	77	78
Vapor pressure	0.200	0.197	0.198	0.203	0.211	0.213	0.215	0.217	0.214	0.211	0.204	0.204
Temperature	39	39	38	39	43	45	46	45	42	41	40	40
Vapor pressure ratio	0.971	0.956	0.961	0.985	1.022	1.034	1.044	1.053	1.038	1.022	0.990	0.990
December:												
Relative humidity	83	84	85	84	80	75	74	76	79	81	83	83
Vapor pressure	0.141	0.139	0.138	0.136	0.140	0.142	0.144	0.142	0.141	0.140	0.138	0.137
Temperature	29	28	28	28	30	32	32	32	30	30	29	28
Vapor pressure ratio	1.014	1.000	0.993	0.978	1.007	1.022	1.036	1.022	1.014	1.007	0.993	0.986

TABLE 4.—*The mean bihourly relative humidity, air temperature (°F.), vapor pressure (inches), and "vapor pressure ratio" at selected stations for the period stated under each*—Continued.

Element.	A. M.						P. M.					
	2	4	6	8	10	NOON.	2	4	6	8	10	12
Sacramento, Cal. (Records cover period July, 1913, to April, 1916, inclusive.)												
January:												
Relative humidity	88	89	91	91	87	83	73	72	77	80	83	86
Vapor pressure	0.144	0.143	0.143	0.143	0.145	0.148	0.150	0.150	0.149	0.148	0.146	0.145
Temperature	44	43	43	43	45	48	50	50	49	48	46	45
Vapor pressure ratio	0.986	0.979	0.979	0.979	1.000	1.028	1.042	1.042	1.021	1.028	1.000	1.000
February:												
Relative humidity	90	90	92	91	85	74	66	65	71	77	83	88
Vapor pressure	0.149	0.148	0.147	0.147	0.150	0.154	0.156	0.157	0.156	0.154	0.152	0.151
Temperature	49	48	47	47	50	54	56	57	56	54	52	51
Vapor pressure ratio	1.000	0.979	0.958	0.958	1.000	1.042	1.042	1.063	1.042	1.042	1.000	1.000
March:												
Relative humidity	81	82	84	86	72	58	50	47	52	63	72	78
Vapor pressure	0.152	0.151	0.149	0.151	0.156	0.161	0.164	0.165	0.164	0.160	0.157	0.154
Temperature	52	51	49	51	56	61	64	65	64	60	57	54
Vapor pressure ratio	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
April:												
Relative humidity	82	83	85	79	66	53	48	45	51	62	72	77
Vapor pressure	0.153	0.151	0.150	0.154	0.156	0.165	0.167	0.168	0.166	0.161	0.158	0.155
Temperature	53	51	50	54	56	65	67	68	66	61	58	55
Vapor pressure ratio	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
May:												
Relative humidity	86	90	89	80	65	55	50	48	54	70	80	84
Vapor pressure	0.154	0.153	0.152	0.156	0.162	0.166	0.169	0.170	0.168	0.163	0.158	0.156
Temperature	54	53	52	56	62	66	69	70	68	63	58	56
Vapor pressure ratio	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
June:												
Relative humidity	78	82	84	72	56	43	34	32	36	54	66	74
Vapor pressure	0.156	0.155	0.154	0.158	0.164	0.169	0.171	0.172	0.170	0.165	0.161	0.158
Temperature	58	57	56	63	69	75	80	80	78	70	64	60
Vapor pressure ratio	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
July:												
Relative humidity	72	76	80	72	58	45	35	31	35	47	58	66
Vapor pressure	0.157	0.156	0.155	0.159	0.165	0.170	0.172	0.173	0.171	0.166	0.162	0.159
Temperature	62	60	59	65	73	80	84	86	83	75	68	65
Vapor pressure	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
August:												
Relative humidity	72	78	81	75	60	44	34	31	37	48	60	68
Vapor pressure	0.157	0.156	0.155	0.159	0.165	0.170	0.172	0.173	0.171	0.166	0.162	0.159
Temperature	63	61	60	65	73	82	87	88	84	75	68	65
Vapor pressure ratio	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
September:												
Relative humidity	68	72	74	68	53	38	30	28	33	46	56	62
Vapor pressure	0.154	0.153	0.152	0.156	0.162	0.167	0.169	0.170	0.168	0.163	0.159	0.156
Temperature	60	58	57	61	69	77	82	83	80	71	65	62
Vapor pressure ratio	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
October:												
Relative humidity	65	69	72	70	54	40	32	31	37	46	54	61
Vapor pressure	0.151	0.150	0.149	0.153	0.159	0.164	0.166	0.167	0.165	0.160	0.156	0.153
Temperature	56	54	53	55	64	71	76	77	72	67	62	59
Vapor pressure ratio	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
November:												
Relative humidity	81	83	86	85	75	60	53	52	58	65	71	78
Vapor pressure	0.147	0.146	0.145	0.145	0.147	0.151	0.153	0.154	0.153	0.151	0.149	0.147
Temperature	49	48	47	47	53	59	62	62	59	56	53	50
Vapor pressure ratio	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
December:												
Relative humidity	88	88	89	89	87	78	72	72	79	83	86	87
Vapor pressure	0.142	0.141	0.140	0.140	0.142	0.146	0.148	0.148	0.147	0.145	0.144	0.143
Temperature	43	42	41	41	44	48	51	51	49	46	45	44
Vapor pressure ratio	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000	1.000
St. Louis, Mo. (Records cover period May, 1911, to November, 1914, inclusive.)												
January:												
Relative humidity	76	78	80	81	78	72	68	67	70	72	74	74
Vapor pressure	0.145	0.140	0.139	0.138	0.143	0.147	0.155	0.162	0.158	0.152	0.150	0.147
Temperature	29	29	28	28	30	32	35	36	34	33	31	30
Vapor pressure ratio	0.986	0.952	0.946	0.939	0.973	1.000	1.054	1.102	1.075	1.034	1.020	1.000
February:												
Relative humidity	73	76	78	78	74	67	64	63	65	68	70	71
Vapor pressure	0.115	0.113	0.111	0.112	0.121	0.125	0.128	0.131	0.126	0.122	0.119	0.114
Temperature	26	25	24	24	27	31	33	34	33	31	29	28
Vapor pressure ratio	0.958	0.942	0.926	0.933	1.008	1.042	1.067	1.092	1.050	1.017	0.992	0.950
March:												
Relative humidity	75	78	78	77	72	65	62	61	63	67	70	73
Vapor pressure	0.171	0.172	0.169	0.174	0.185	0.190	0.197	0.201	0.200	0.199	0.192	1.88
Temperature	36	35	35	35	39	43	45	46	45	42	40	39
Vapor pressure ratio	0.919	0.925	0.909	0.935	0.995	1.022	1.059	1.081	1.075	1.070	1.032	1.011

TABLE 4.—*The mean bihourly relative humidity, air temperature (°F.), vapor pressure (inches), and "vapor pressure ratio" at selected stations for the period stated under each*—Continued.

Element.	A. M.						P. M.					
	2	4	6	8	10	NOON.	2	4	6	8	10	12
St. Louis, Mo.—Continued.												
April:												
Relative humidity	71	73	75	72	65	61	57	56	58	63	66	68
Vapor pressure	0.293	0.290	0.279	0.286	0.309	0.315	0.321	0.322	0.312	0.312	0.309	0.299
Temperature	53	51	50	52	57	59	62	63	61	58	56	54
Vapor pressure ratio	0.987	0.976	0.939	0.963	1.040	1.061	1.081	1.084	1.051	1.051	1.040	1.007
May:												
Relative humidity	65	68	71	66	58	51	47	47	47	53	58	62
Vapor pressure	0.396	0.397	0.389	0.409	0.430	0.428	0.434	0.422	0.419	0.422	0.412	0.410
Temperature	64	62	61	65	70	74	76	77	76	72	68	66
Vapor pressure ratio	0.966	0.968	0.949	0.998	1.049	1.044	1.059	1.029	1.022	1.020	1.005	1.000
June:												
Relative humidity	64	67	69	64	56	49	45	45	46	52	57	61
Vapor pressure	0.496	0.493	0.493	0.511	0.530	0.525	0.517	0.516	0.574	0.518	0.512	0.503
Temperature	72	70	69	73	78	82	84	85	84	80	76	74
Vapor pressure ratio	0.974	0.969	0.969	1.004	1.041	1.031	1.016	1.014	1.010	1.018	1.006	0.988
July:												
Relative humidity	68	71	73	68	60	53	50	48	50	54	59	64
Vapor pressure	0.602	0.598	0.593	0.628	0.630	0.635	0.640	0.631	0.618	0.618	0.606	0.612
Temperature	76	74	72	76	82	85	87	88	87	83	80	77
Vapor pressure ratio	0.980	0.974	0.966	1.023	1.036	1.034	1.042	1.028	1.007	1.007	0.987	0.997
August:												
Relative humidity	72	75	77	71	63	55	51	50	53	59	64	68
Vapor pressure	0.594	0.591	0.578	0.600	0.622	0.608	0.606	0.601	0.600	0.607	0.603	0.604
Temperature	74	72	71	74	79	83	85	85	84	80	78	76
Vapor pressure ratio	0.997	0.992	0.970	1.007	1.044	1.020	1.017	1.008	1.007	1.018	1.012	1.013
September:												
Relative humidity	75	79	81	78	68	60	56	56	58	64	69	73
Vapor pressure	0.529	0.522	0.515	0.528	0.541	0.543	0.550	0.548	0.538	0.535	0.535	0.522
Temperature	66	66	65	66	71	76	78	78	76	73	71	69
Vapor pressure ratio	1.000	0.987	0.974	0.998	1.023	1.026	1.040	1.036	1.017	1.011	1.011	0.987
October:												
Relative humidity	75	78	80	80	71	62	57	56	60	65	69	73
Vapor pressure	0.358	0.340	0.338	0.353	0.372	0.371	0.375	0.368	0.360	0.362	0.360	0.350
Temperature	55	54	53	54	59	63	66	66	63	60	58	56
Vapor pressure ratio	1.014	0.963	0.958	1.000	1.054	1.051	1.062	1.043	1.020	1.025	1.020	0.992
November:												
Relative humidity	70	72	74	73	67	62	60	59	62	64	66	68
Vapor pressure	0.221	0.223	0.224	0.226	0.229	0.253	0.260	0.261	0.254	0.241	0.232	0.230
Temperature	44	43	42	43	47	50	53	54	51	48	47	46
Vapor pressure ratio	0.936	0.945	0.949	0.958	0.970	1.072	1.102	1.106	1.076	1.021	0.983	0.975
December:												
Relative humidity	70	72	73	77	74	68	64	62	64	66	68	69
Vapor pressure	0.163	0.165	0.163	0.171	0.186	0.192	0.190	0.197	0.183	0.172	0.172	0.169
Temperature	36	36	36	36	38	42	44	45	42	41	39	38
Vapor pressure ratio	0.947	0.960	0.947	0.994	1.081	1.116	1.105	1.151	1.064	1.000	1.000	0.983
San Francisco, Cal. (Records cover period May, 1911, to April, 1916, inclusive.)												
January:												
Relative humidity	84	84	86	86	80	75	70	70	75	78	81	82
Vapor pressure	0.275	0.275	0.273	0.273	0.271	0.277	0.280	0.281	0.285	0.285	0.283	0.270
Temperature	47	47	46	46	48	51	53	53	51	50	49	48
Vapor pressure ratio	0.989	0.989	0.982	0.982	0.975	0.996	1.007	1.011	1.025	1.025	1.018	1.004
February:												
Relative humidity	83	83	83	82	77	69	63	66	73	76	79	82
Vapor pressure	0.304	0.298	0.296	0.295	0.295	0.298	0.305	0.311	0.311	0.313	0.310	0.308
Temperature	50	50	49	50	52	55	58	57	55	54	52	51
Vapor pressure ratio	1.000	0.980	0.974	0.970	0.970	0.980	1.003	1.023	1.023	1.030	1.020	1.013
March:												
Relative humidity	79	80	80	78	70	60	58	60	67	72	74	76
Vapor pressure	0.298	0.294	0.291	0.294	0.292	0.290	0.299	0.299	0.303	0.304	0.301	0.298
Temperature	51	50	50	51	55	58	61	59	57	55	54	52
Vapor pressure ratio	1.003	0.990	0.980	0.990	0.983	0.976	1.007	1.007	1.020	1.023	1.013	1.003
April:												
Relative humidity	80	80	81	73	65	59	58	62	67	72	74	77
Vapor pressure	0.307	0.306	0.299	0.298	0.295	0.298	0.303	0.305	0.308	0.305	0.305	0.306
Temperature	52	51	51	53	57	60	61	59	57	55	53	53
Vapor pressure ratio	1.010	1.007	0.984	0.980	0.974	0.980	0.997	1.003	1.013	1.003	1.003	1.007
May:												
Relative humidity	83	83	83	75	67	64	63	67	72	78	80	82
Vapor pressure	0.325	0.323	0.317	0.318	0.323	0.328	0.332	0.333	0.334	0.331	0.329	0.328
Temperature	52	52	52	55	58	60	61	59	57	55	54	53
Vapor pressure ratio	0.994	0.988	0.969	0.972	0.988	1.003	1.015	1.018	1.021	1.012	1.006	1.003
June:												
Relative humidity	85	86	85	77	68	64	66	69	75	81	83	85
Vapor pressure	0.338	0.339	0.334	0.340	0.346	0.352	0.358	0.356	0.358	0.353	0.346	0.343
Temperature	53	53	52	56	60	62	62	61	58	56	54	53
Vapor pressure ratio	0.974	0.977	0.963	0.980	0.997	1.014	1.032	1.026	1.032	1.012	0.997	0.988

TABLE 4.—*The mean bihourly relative humidity, air temperature (°F.), vapor pressure (inches), and "vapor pressure ratio" at selected stations for the period stated under each*—Continued.

Element.	A. M.						P. M.					
	2	4	6	8	10	NOON.	2	4	6	8	10	12
San Francisco, Cal.—Continued.												
July:												
Relative humidity	90	90	90	84	74	69	70	72	80	87	88	90
Vapor pressure	0.374	0.372	0.371	0.379	0.382	0.386	0.392	0.390	0.394	0.387	0.382	0.378
Temperature	54	53	53	56	60	62	63	61	59	56	55	54
Vapor pressure ratio	0.979	0.974	0.971	0.992	1.000	1.010	1.026	1.021	1.031	1.013	1.000	0.990
August:												
Relative humidity	89	90	89	86	76	70	70	73	80	85	87	88
Vapor pressure	0.384	0.380	0.380	0.385	0.400	0.403	0.410	0.405	0.401	0.394	0.393	0.390
Temperature	55	54	54	56	61	62	64	62	59	57	56	55
Vapor pressure ratio	0.980	0.969	0.969	0.982	1.020	1.028	1.046	1.033	1.023	1.005	1.003	0.995
September:												
Relative humidity	85	86	87	80	68	60	61	65	74	78	81	84
Vapor pressure	0.392	0.390	0.391	0.392	0.385	0.379	0.392	0.391	0.395	0.391	0.391	0.392
Temperature	57	57	56	58	63	67	67	65	62	60	59	57
Vapor pressure ratio	1.000	0.995	0.997	1.000	0.982	0.967	1.000	0.997	1.008	0.997	0.997	1.000
October:												
Relative humidity	82	83	81	78	66	55	53	60	68	72	75	80
Vapor pressure	0.357	0.356	0.353	0.349	0.341	0.332	0.333	0.346	0.349	0.348	0.349	0.360
Temperature	55	55	54	56	61	67	67	64	61	59	58	56
Vapor pressure ratio	1.017	1.014	1.006	0.994	0.972	0.946	0.949	0.986	0.994	0.991	0.994	1.026
November:												
Relative humidity	83	84	84	82	73	63	57	61	66	70	76	79
Vapor pressure	0.330	0.327	0.322	0.318	0.314	0.307	0.309	0.315	0.314	0.313	0.323	0.326
Temperature	53	52	52	52	55	59	62	61	58	56	54	51
Vapor pressure ratio	1.031	1.022	1.006	0.994	0.981	0.959	0.966	0.984	0.981	0.978	1.009	1.019
December:												
Relative humidity	79	80	81	81	76	68	65	65	71	74	78	79
Vapor pressure	0.267	0.264	0.264	0.263	0.266	0.263	0.267	0.274	0.278	0.275	0.277	0.269
Temperature	48	47	47	47	49	52	54	54	52	51	50	48
Vapor pressure ratio	0.989	0.978	0.978	0.974	0.985	0.974	0.989	1.015	1.030	1.019	1.026	0.996
Sheridan, Wyo. (Records cover period July, 1913, to April, 1916, inclusive.)												
January:												
Relative humidity	80	78	78	78	69	60	56	57	67	74	77	79
Vapor pressure	0.062	0.060	0.058	0.058	0.069	0.078	0.081	0.081	0.072	0.069	0.067	0.063
Temperature	11	11	11	10	17	23	26	26	19	15	13	11
Vapor pressure ratio	0.954	0.923	0.892	0.892	1.062	1.200	1.246	1.246	1.108	1.062	1.031	0.969
February:												
Relative humidity	86	86	86	84	73	62	60	62	72	80	84	86
Vapor pressure	0.077	0.077	0.076	0.072	0.090	0.102	0.108	0.112	0.104	0.090	0.086	0.082
Temperature	15	16	14	14	22	30	32	32	26	20	18	16
Vapor pressure ratio	0.856	0.856	0.844	0.800	1.000	1.133	1.200	1.244	1.156	1.000	0.956	0.911
March:												
Relative humidity	77	77	80	75	61	51	47	48	54	68	74	75
Vapor pressure	0.119	0.113	0.115	0.117	0.121	0.121	0.124	0.126	0.129	0.134	0.130	0.126
Temperature	28	26	26	28	35	41	43	44	40	34	31	30
Vapor pressure ratio	0.975	0.926	0.943	0.959	0.992	0.992	1.016	1.033	1.057	1.098	1.066	1.033
April:												
Relative humidity	80	81	82	67	53	46	44	45	49	63	71	76
Vapor pressure	0.190	0.183	0.183	0.196	0.190	0.181	0.183	0.184	0.187	0.199	0.208	0.198
Temperature	39	37	37	44	51	54	56	56	54	47	44	41
Vapor pressure ratio	1.027	0.989	0.989	1.059	1.027	0.978	0.989	0.995	1.011	1.076	1.124	1.070
May:												
Relative humidity	80	83	82	67	56	50	47	48	50	64	73	77
Vapor pressure	0.230	0.227	0.236	0.251	0.250	0.245	0.243	0.246	0.246	0.265	0.258	0.246
Temperature	44	42	44	51	56	59	60	61	59	54	49	46
Vapor pressure ratio	0.954	0.942	0.979	1.041	1.037	1.017	1.008	1.020	1.020	1.100	1.070	1.020
June:												
Relative humidity	83	86	82	63	53	48	47	48	53	65	76	81
Vapor pressure	0.296	0.283	0.304	0.319	0.324	0.315	0.314	0.314	0.332	0.344	0.333	0.316
Temperature	49	48	51	59	66	68	69	68	67	61	55	52
Vapor pressure ratio	0.931	0.890	0.958	1.003	1.019	0.991	0.987	0.987	1.044	1.082	1.047	0.994
July:												
Relative humidity	74	79	78	58	47	44	39	39	43	53	68	71
Vapor pressure	0.338	0.328	0.349	0.378	0.376	0.353	0.350	0.351	0.355	0.366	0.371	0.352
Temperature	57	54	56	66	73	76	78	78	76	66	62	59
Vapor pressure ratio	0.960	0.932	0.991	1.074	1.068	1.003	0.994	0.997	1.009	1.040	1.054	1.000
August:												
Relative humidity	77	82	82	62	43	34	32	33	38	55	65	71
Vapor pressure	0.324	0.316	0.322	0.369	0.360	0.325	0.315	0.317	0.329	0.352	0.340	0.329
Temperature	54	52	52	65	75	80	81	80	77	67	61	57
Vapor pressure ratio	0.994	0.969	0.988	1.132	1.104	0.997	0.966	0.972	1.009	1.080	1.043	1.009
September:												
Relative humidity	81	83	84	70	50	41	40	41	49	67	75	80
Vapor pressure	0.244	0.237	0.235	0.266	0.269	0.247	0.245	0.253	0.265	0.270	0.261	0.249
Temperature	45	44	43	51	62	67	69	68	63	54	50	46
Vapor pressure ratio	0.976	0.948	0.940	1.064	1.076	0.988	0.980	1.012	1.060	1.080	1.044	0.996

TABLE 4.—*The mean bihourly relative humidity, air temperature (°F.), vapor pressure (inches), and "vapor pressure ratio" at selected stations for the period stated under each*—Continued.

Element.	A. M.						P. M.					
	2	4	6	8	10	NOON.	2	4	6	8	10	12
Sheridan, Wyo.—Continued.												
October:												
Relative humidity	81	81	82	76	55	50	40	43	54	70	71	79
Vapor pressure	0.164	0.160	0.160	0.171	0.192	0.185	0.175	0.189	0.183	0.182	0.176	0.167
Temperature	35	34	34	37	50	57	58	57	50	42	38	36
Vapor pressure ratio	0.953	0.930	0.930	0.994	1.116	1.076	1.017	1.047	1.064	1.058	1.023	0.971
November:												
Relative humidity	77	77	79	77	60	47	41	42	57	69	71	74
Vapor pressure	0.113	0.109	0.112	0.112	0.132	0.133	0.128	0.128	0.125	0.120	0.117	0.113
Temperature	27	26	26	27	37	45	48	47	38	31	30	28
Vapor pressure ratio	0.958	0.924	0.949	0.949	1.119	1.127	1.085	1.085	1.059	1.017	0.992	0.958
December:												
Relative humidity	85	84	85	85	75	62	56	57	71	80	82	84
Vapor pressure	0.069	0.068	0.067	0.068	0.091	0.097	0.098	0.094	0.086	0.080	0.075	0.073
Temperature	14	12	13	13	22	29	32	31	23	18	16	14
Vapor pressure ratio	0.908	0.895	0.882	0.895	1.107	1.276	1.289	1.237	1.132	1.053	0.987	0.961
Springfield, Ill.												
(Records cover period February, 1912, to April, 1916, inclusive.)												
January:												
Relative humidity	82	83	84	84	81	76	74	74	77	80	81	82
Vapor pressure	0.139	0.138	0.136	0.138	0.145	0.152	0.149	0.158	0.152	0.146	0.145	0.140
Temperature	28	28	27	27	28	32	34	34	33	31	30	29
Vapor pressure ratio	0.972	0.965	0.951	0.965	1.014	1.063	1.042	1.105	1.063	1.021	1.014	0.979
February.												
Relative humidity	80	81	81	80	75	70	67	67	71	75	77	78
Vapor pressure	0.118	0.115	0.110	0.112	0.116	0.125	0.132	0.135	0.135	0.131	0.126	0.122
Temperature	25	24	23	23	26	28	32	32	30	29	27	26
Vapor pressure ratio	0.967	0.943	0.901	0.918	0.951	1.025	1.082	1.107	1.107	1.074	1.033	1.000
March.												
Relative humidity	79	80	81	79	72	67	63	63	66	72	75	77
Vapor pressure	0.159	0.155	0.153	0.157	0.167	0.176	0.181	0.186	0.182	0.178	0.175	0.170
Temperature	33	32	31	33	37	40	42	43	41	38	37	35
Vapor pressure ratio	0.946	0.923	0.911	0.935	0.994	1.047	1.077	1.107	1.083	1.060	1.042	1.012
April:												
Relative humidity	73	75	76	70	60	54	52	50	54	61	66	70
Vapor pressure	0.266	0.257	0.254	0.273	0.288	0.288	0.296	0.297	0.290	0.282	0.281	0.276
Temperature	49	48	47	51	54	60	62	63	61	57	54	51
Vapor pressure ratio	0.967	0.934	0.924	0.993	1.047	1.047	1.076	1.080	1.055	1.025	1.022	1.004
May:												
Relative humidity	73	76	76	66	58	52	50	49	53	61	66	70
Vapor pressure	0.370	0.358	0.351	0.380	0.396	0.398	0.402	0.402	0.401	0.403	0.396	0.382
Temperature	58	56	56	63	68	71	73	74	71	66	63	61
Vapor pressure ratio	0.964	0.932	0.914	0.990	1.031	1.036	1.047	1.047	1.044	1.049	1.031	0.995
June:												
Relative humidity	73	75	76	64	55	49	47	47	50	60	65	70
Vapor pressure	0.483	0.475	0.466	0.503	0.512	0.502	0.509	0.507	0.500	0.512	0.507	0.493
Temperature	66	64	64	71	77	80	82	82	80	75	71	68
Vapor pressure ratio	0.976	0.960	0.941	1.016	1.034	1.014	1.028	1.024	1.010	1.034	1.024	0.996
July:												
Relative humidity	79	80	80	68	58	51	48	48	52	62	68	73
Vapor pressure	0.590	0.576	0.569	0.603	0.611	0.606	0.595	0.598	0.588	0.602	0.604	0.598
Temperature	71	69	69	77	81	85	87	86	84	79	75	73
Vapor pressure ratio	1.000	0.976	0.964	1.022	1.036	1.027	1.008	1.014	0.997	1.020	1.024	1.014
August:												
Relative humidity	77	79	80	72	61	54	52	52	56	67	71	74
Vapor pressure	0.532	0.530	0.518	0.559	0.580	0.571	0.570	0.564	0.558	0.577	0.563	0.552
Temperature	68	67	66	72	78	81	83	83	80	75	72	70
Vapor pressure ratio	0.962	0.958	0.937	1.011	1.049	1.033	1.031	1.020	1.009	1.043	1.018	0.998
September:												
Relative humidity	81	82	83	76	66	58	54	54	60	70	75	79
Vapor pressure	0.472	0.450	0.450	0.485	0.518	0.511	0.503	0.501	0.489	0.495	0.488	0.479
Temperature	62	61	60	65	71	74	77	77	73	68	66	64
Vapor pressure ratio	0.983	0.937	0.937	1.010	1.079	1.065	1.048	1.044	1.019	1.031	1.017	0.998
October:												
Relative humidity	76	78	80	78	68	60	56	56	61	67	71	74
Vapor pressure	0.302	0.300	0.296	0.322	0.345	0.346	0.348	0.350	0.333	0.324	0.321	0.310
Temperature	52	50	49	52	58	62	65	65	61	57	55	53
Vapor pressure ratio	0.947	0.940	0.928	1.009	1.081	1.084	1.091	1.097	1.044	1.016	1.006	0.972
November:												
Relative humidity	72	74	76	76	69	60	56	55	60	64	67	69
Vapor pressure	0.210	0.212	0.207	0.215	0.237	0.242	0.241	0.234	0.223	0.217	0.216	0.213
Temperature	42	41	40	42	47	51	53	52	49	46	44	44
Vapor pressure ratio	0.972	0.981	0.958	0.995	1.097	1.120	1.116	1.083	1.032	1.005	1.000	0.986
December:												
Relative humidity	80	81	82	82	79	73	70	70	73	76	78	79
Vapor pressure	0.145	0.143	0.138	0.139	0.146	0.154	0.156	0.154	0.150	0.148	0.146	0.144
Temperature	30	29	28	28	31	34	36	36	34	32	31	30
Vapor pressure ratio	1.007	0.993	0.958	0.965	1.014	1.069	1.083	1.069	1.041	1.027	1.014	1.000

TABLE 5.—*Corrections to be applied to the average monthly values of the relative humidity at 8ª and 8ᵖ (75th meridian time), as given for the corresponding stations in Table 1, to reduce the latter values to true 24-hour means.*

[Based on the continuous hygrograph records tabulated in Table 4.]

Burlington, Vt.

(Observations at 8ª and 8ᵖ, local standard time, July, 1911, to April, 1916, inclusive.

75th meridian time.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
8 a. m.	− 4	− 5	− 5	− 5	− 5	− 4	− 4	− 5	− 7	− 7	− 6	− 4	.....
8 p. m.	0	0	+ 1	+ 2	+ 4	+ 2	+ 2	+ 1	+ 1	+ 1	0	+ 1	.....
(8ª+8ᵖ)+2.	− 2	− 2	− 2	− 1	0	− 1	− 1	− 2	− 3	− 3	− 3	− 2	.....

Ithaca, N. Y.

(Observations at 8ª and 8ᵖ, local standard time, November, 1911, to December, 1915, inclusive.)

8 a. m.	− 4	− 5	− 7	− 8	− 6	− 3	− 6	− 9	− 9	− 9	− 7	− 4	.....
8 p. m.	0	+ 2	+ 1	+ 2	+ 3	+ 2	+ 2	+ 1	− 1	0	+ 1	+ 1	.....
(8ª+8ᵖ)+2.	− 2	− 2	− 3	− 3	− 2	− 1	− 2	− 4	− 5	− 4	− 3	− 2	.....

Columbus, Ohio.

(Observations at 7ª and 7ᵖ, local standard time, May, 1911, to March, 1916, inclusive.)

8 a. m.	− 4	− 6	− 7	− 9	− 9	− 8	−11	−12	−10	− 9	− 7	− 5	.....
8 p. m.	+ 1	+ 3	+ 3	+ 4	+ 7	+ 6	+ 8	+ 8	+ 6	+ 5	+ 3	+ 3	.....
(8ª+8ᵖ)+2.	− 2	− 2	− 2	− 2	− 1	− 1	− 2	− 2	− 2	− 2	− 2	− 1	.....

Grand Rapids, Mich.

(Observations at 7ª and 7ᵖ, local standard time, July, 1912, to April, 1916, inclusive.)

8 a. m.	− 3	− 6	− 7	− 9	− 8	− 8	− 9	−11	−12	−11	− 6	− 4	.....
8 p. m.	+ 1	+ 1	+ 3	+ 4	+ 5	+ 6	+ 8	+ 4	+ 3	+ 1	− 1	+ 1	.....
(8ª+8ᵖ)+2.	− 1	− 2	− 2	− 2	− 2	− 1	− 1	− 3	− 4	− 5	− 4	− 2	.....

Chicago, Ill.

(Observations at 7ª and 7ᵖ, local standard time, May, 1911, to April, 1916, inclusive.)

8 a. m.	− 3	− 3	− 4	− 6	− 5	− 4	− 4	− 4	− 5	− 6	− 5	− 4	.....
8 p. m.	+ 1	+ 2	+ 1	+ 2	+ 2	+ 2	+ 2	+ 2	+ 1	+ 2	+ 2	+ 2	.....
(8ª+8ᵖ)+2.	− 1	0	− 2	− 2	− 2	− 1	− 1	− 1	− 2	− 2	− 2	− 1	.....

Springfield, Ill.

(Observations at 7ª and 7ᵖ, local standard time, February, 1912, to April, 1916, inclusive.)

8 a. m.	− 4	− 5	− 7	−10	− 9	− 9	−10	−10	−10	−10	−10	− 5	.....
8 p. m.	+ 2	+ 2	+ 4	+ 5	+ 5	+ 6	+ 7	+ 4	+ 5	+ 5	+ 4	+ 3	.....
(8ª+8ᵖ)+2.	− 1	− 2	− 2	− 2	− 2	− 2	− 2	− 3	− 2	− 2	− 3	− 1	.....

St. Louis, Mo.

(Observations at 7ª and 7ᵖ, local standard time, May, 1911, to November, 1914, inclusive.)

8 a. m.	− 6	− 7	− 8	− 9	−10	−10	−10	− 9	−12	−11	− 8	− 6	.....
8 p. m.	+ 3	+ 5	+ 5	+ 5	+ 8	+ 7	+ 8	+ 7	+ 7	+ 7	+ 3	+ 4	.....
(8ª+8ᵖ)+2.	− 2	− 1	− 2	− 2	− 1	− 2	− 1	− 1	− 2	− 2	− 2	− 1	.....

Sheridan, Wyo.

(Observations at 6ª and 6ᵖ, local standard time, July, 1913, to April, 1916, inclusive.)

8 a. m.	− 7	− 9	−14	−19	−17	−17	−20	−26	−21	−17	−15	− 9	.....
8 p. m.	+ 4	+ 5	+12	+14	+15	+12	+15	+18	+14	+11	+ 7	+ 5	.....
(8ª+8ᵖ)+2.	− 2	− 2	− 1	− 2	− 1	− 2	− 2	− 4	− 4	− 3	− 4	− 2	.....

Boise, Idaho.

(Observations at 6ª and 6ᵖ, local standard time, May, 1911, to May, 1915, inclusive.)

8 a. m.	− 6	− 9	−15	−16	−19	−19	−19	−18	−14	−14	− 9	− 7	.....
8 p. m.	+ 6	+12	+11	+15	+16	+17	+16	+15	+14	+14	+ 9	+ 6	.....
(8ª+8ᵖ)+2.	0	+ 2	− 2	0	− 2	− 1	− 2	− 2	0	0	0	0	.....

Sacramento, Cal.

(Observations at 5ª and 5ᵖ, local standard time, July, 1913, to April, 1916, inclusive.)

8 a. m.	− 7	−10	−14	−17	−19	−24	−22	−23	−21	−17	−13	− 5	.....
8 p. m.	+ 9	+13	+19	+19	+20	+25	+23	+23	+22	+19	+16	+ 9	.....
(8ª+8ᵖ)+2.	+ 1	+ 2	+ 2	+ 1	0	0	0	0	0	+ 1	+ 2	+ 2	.....

Fresno, Cal.

(Observations at 5ª and 5ᵖ, local standard time, May, 1912, to April, 1916, inclusive.)

8 a. m.	− 8	−13	−18	−23	−23	−22	−18	−18	−19	−18	−16	−10	.....
8 p. m.	+10	+15	+18	+20	+19	+18	+17	+17	+18	+16	+14	+12	.....
(8ª+8ᵖ)+2.	+ 1	+ 1	0	− 2	− 2	− 2	0	0	0	− 1	− 1	+ 1	.....

San Francisco, Cal.

(Observations at 5ª and 5ᵖ, local standard time, May, 1911, to April, 1916, inclusive.)

8 a. m.	− 6	− 7	− 9	− 9	− 8	− 9	− 8	− 8	−10	−13	−11	− 5	.....
8 p. m.	+ 7	+ 6	+ 7	+ 7	+ 5	+ 5	+ 6	+ 6	+ 6	+ 7	+ 9	+ 7	.....
(8ª+8ᵖ)+2.	0	0	− 1	− 1	− 2	− 2	− 1	− 1	− 2	− 3	− 1	+ 1	.....

TABLE 6.—*Corrections to be applied to the average monthly values of the relative humidity at 8ª and 8ᵖ (75th meridian time), as given in Table 1, to obtain the averages for the correspondingly numbered hours of the day (local standard time).*

(Based on data given in Table 4.)

Burlington, Vt.

(Records cover period July, 1911, to April, 1916, inclusive.)

Month.	A. M.						P. M.					
	2	4	6	8	10	NOON.	2	4	6	8	10	12
January	0	+ 1	+ 1	+ 2	− 2	− 5	− 7	− 6	− 4	− 2	− 1	+ 1
February	+ 2	+ 3	+ 3	+ 3	− 3	− 8	−10	− 8	− 5	− 2	− 1	0
March	+ 4	+ 5	+ 5	+ 3	− 5	− 7	−10	−10	− 6	− 3	− 1	+ 2
April	+ 8	+ 9	+ 9	+ 4	− 5	−10	−13	−12	− 8	− 3	+ 1	+ 5
May	+10	+13	+10	+ 5	− 5	−10	−13	−13	− 9	− 4	+ 3	+ 9
June	+14	+14	+10	+ 3	− 7	−13	−17	−15	−11	− 3	+ 5	+11
July	+13	+14	+11	+ 3	− 6	−14	−17	−16	−11	− 3	+ 6	+11
August	+11	+11	+11	+ 3	− 8	−14	−19	−18	−10	− 3	+ 4	+ 8
September	+ 8	+ 9	+10	+ 4	− 9	−16	−20	−18	−12	− 4	+ 2	+ 6
October	+ 3	+ 5	+ 6	+ 4	− 6	−11	−14	−13	− 8	− 4	− 1	+ 1
November	0	+ 2	+ 3	+ 3	− 4	− 8	−10	− 7	− 5	− 3	− 2	− 2
December	− 1	+ 1	+ 1	+ 2	− 1	− 5	− 7	− 6	− 3	− 3	− 3	− 2

Ithaca, N. Y.

(Records cover period November, 1911, to December, 1915, inclusive.)

January	0	+ 1	+ 1	+ 2	0	− 5	− 7	− 7	− 5	− 2	− 1	− 1
February	0	+ 2	+ 2	+ 3	− 2	− 8	−11	−10	− 7	− 4	+ 1	0
March	+ 4	+ 5	+ 5	+ 4	− 4	−10	−14	−13	− 9	− 4	0	+ 1
April	+ 7	+ 9	+10	+ 5	− 5	−13	−16	−15	−11	− 5	0	+ 3
May	+13	+14	+13	+ 5	− 6	−13	−16	−16	−12	− 4	+ 4	+10
June	+15	+18	+15	+ 3	− 8	−14	−17	−17	−12	− 2	+ 8	+12
July	+12	+14	+14	+ 4	−10	−18	−22	−20	−14	− 4	+ 4	+10
August	+ 9	+11	+12	+ 5	− 8	−18	−23	−21	−15	− 5	+ 2	+ 7
September	+ 6	+ 8	+ 9	+ 4	−11	−20	−23	−23	−15	− 4	+ 1	+ 4
October	+ 4	+ 5	+ 6	+ 4	− 7	−15	−19	−19	−12	− 5	0	+ 2
November	0	+ 1	+ 3	+ 4	− 2	− 8	−12	−12	− 7	− 4	− 3	− 1
December	+ 1	+ 2	+ 3	+ 3	− 1	− 5	− 7	− 6	− 3	− 2	0	+ 1

Columbus, Ohio.

(Records cover period May, 1911, to March, 1916, inclusive.)

January	+ 1	+ 2	+ 3	+ 3	0	− 4	− 6	− 6	− 4	− 1	0	+ 1
February	+ 3	+ 4	+ 6	+ 4	− 2	− 6	− 8	− 9	− 5	− 3	− 1	+ 2
March	+ 3	+ 5	+ 6	+ 4	− 2	− 7	−10	−10	− 7	− 4	− 1	+ 1
April	+ 7	+ 8	+10	+ 4	− 4	− 9	−13	−13	− 9	− 4	0	+ 4
May	+ 9	+11	+12	+ 5	− 4	− 9	−13	−13	−11	− 4	0	+ 4
June	+ 9	+11	+11	+ 3	− 5	−10	−13	−14	−10	− 4	+ 1	+ 5
July	+10	+13	+12	+ 6	− 6	−13	−17	−17	−13	− 6	+ 1	+ 6
August	+ 8	+10	+12	+ 7	− 4	−12	−16	−16	−14	− 6	− 1	+ 4
September	+ 7	+ 9	+10	+ 6	− 5	−12	−16	−16	−11	− 5	+ 1	+ 4
October	+ 6	+ 8	+ 8	+ 6	− 3	−10	−14	−14	− 9	− 4	0	+ 3
November	+ 2	+ 4	+ 6	+ 5	− 2	− 8	−11	−11	− 7	− 3	− 1	+ 1
December	+ 2	+ 3	+ 4	+ 4	+ 1	− 4	− 6	− 6	− 5	− 3	− 2	0

Grand Rapids, Mich.

(Records cover period July, 1912, to April, 1916, inclusive.)

January	+ 1	+ 1	+ 2	+ 2	0	− 6	− 7	− 6	− 4	− 1	0	+ 1
February	+ 3	+ 4	+ 5	+ 3	− 3	− 8	−10	− 9	− 5	− 2	0	+ 3
March	+ 5	+ 7	+ 8	+ 2	− 7	−12	−14	−13	− 6	− 3	+ 1	+ 3
April	+ 7	+ 9	+10	+ 3	− 9	−15	−18	−16	−11	− 3	+ 2	+ 5
May	+12	+13	+12	+ 1	−10	−14	−17	−16	−11	− 1	+ 5	+10
June	+12	+15	+13	+ 2	− 9	−15	−17	−16	−12	− 3	+ 5	+ 9
July	+14	+16	+14	0	−10	−15	−17	−16	−13	− 2	+ 5	+10
August	+10	+12	+12	+ 1	−12	−18	−20	−19	−11	0	+ 6	+ 9
September	+11	+12	+12	+ 1	−12	−16	−22	−20	−10	− 2	+ 4	+ 8
October	+ 7	+ 7	+ 8	+ 3	−10	−17	−21	−18	− 9	− 1	+ 2	+ 5
November	0	+ 1	+ 2	+ 2	− 6	−10	−12	− 9	− 4	− 2	− 1	0
December	+ 1	+ 2	+ 3	+ 2	− 2	− 7	− 8	− 6	− 3	− 1	+ 1	+ 1

TABLE 6.—*Corrections to be applied to the average monthly values of the relative humidity at 8ª and 8ᵖ (75th meridian time), as given in Table 1, to obtain the averages for the correspondingly numbered hours of the day (local standard time)*—Continued.

Chicago, Ill.

(Records cover period May, 1911, to April, 1916, inclusive.)

Month.	A. M.						P. M.					
	2	4	6	8	10	NOON.	2	4	6	8	10	12
January	0	+1	+2	+3	0	−4	− 5	−4	−2	−2	−2	−1
February	+3	+4	+3	+3	0	−5	− 6	−5	−3	−2	0	+2
March	+1	+1	+3	+1	−3	−6	− 7	−7	−4	−1	−1	0
April	+3	+5	+6	+2	−4	−6	− 9	−9	−5	−3	0	+1
May	+4	+5	+5	+1	−5	−7	− 9	−8	−6	−2	+1	+2
June	+4	+6	+5	+1	−3	−5	− 9	−8	−5	−1	0	+3
July	+5	+6	+6	+1	−4	−6	− 7	−7	−5	0	+2	+4
August	+3	+4	+4	0	−5	−7	− 8	−8	−6	−2	−1	+1
September	+3	+4	+5	+1	−6	−9	−10	−9	−5	−2	0	+2
October	+2	+4	+5	+3	−3	−7	− 9	−8	−5	−2	−1	+1
November	+1	+3	+4	+4	−1	−5	− 9	−7	−4	−3	−1	+1
December	+1	+2	+2	+3	−1	−4	− 7	−6	−4	−3	−2	0

Springfield, Ill.

(Records cover period February, 1912, to April, 1916, inclusive.)

January	+ 1	+ 2	+ 3	+ 3	0	− 5	− 7	− 7	− 4	−1	0	+1
February	+ 3	+ 4	+ 4	+ 3	−2	− 7	−10	−10	− 6	−2	0	+1
March	+ 5	+ 6	+ 7	+ 5	−2	− 7	−11	−11	− 8	−2	+1	+3
April	+ 8	+10	+11	+ 5	−5	−11	−13	−15	− 11	−4	+1	+5
May	+ 9	+12	+12	+ 2	−6	−12	−14	−15	− 11	−3	+2	+6
June	+11	+13	+14	+ 2	−7	−13	−15	−15	− 12	−2	+3	+8
July	+13	+14	+14	+ 2	−4	−15	−18	−18	− 14	−4	+2	+7
August	+ 8	+10	+11	+ 3	−8	−15	−17	−17	− 13	−2	+2	+5
September	+ 9	+10	+11	+ 4	−6	−14	−18	−18	− 12	−2	+3	+7
October	+ 4	+ 6	+ 8	+ 6	−4	−12	−16	−16	− 11	−5	−1	+2
November	+ 3	+ 5	+ 7	+ 7	0	− 9	−13	−14	− 9	−5	−2	0
December	+ 2	+ 3	+ 4	+ 4	+1	− 5	− 8	− 8	− 5	−2	0	+1

St. Louis, Mo.

(Records cover period May, 1911, to November, 1914, inclusive.)

January	0	+ 2	+ 4	+5	+2	− 4	− 8	− 9	− 6	−4	−2	−2
February	+3	+ 6	+ 8	+8	+4	− 3	− 6	− 7	− 5	−2	0	+1
March	+4	+ 7	+ 7	+6	+1	− 6	− 9	−10	− 8	−4	−1	+2
April	+4	+ 6	+ 8	+5	−2	− 6	−10	−11	− 9	−4	−1	+1
May	+6	+ 9	+12	+7	−1	− 8	−12	−12	−12	−6	−1	+3
June	+6	+ 9	+11	+6	−2	− 9	−13	−13	−12	−6	−1	+3
July	+7	+10	+12	+7	−1	− 8	−11	−13	−11	−7	−2	+3
August	+7	+10	+12	+6	−2	−10	−14	−15	−12	−6	−1	+3
September	+5	+ 9	+11	+8	−2	−10	−14	−14	−12	−6	−1	+3
October	+4	+ 7	+ 9	+9	0	− 8	−14	−15	−11	−6	−2	+2
November	+2	+ 4	+ 6	+5	−1	− 6	− 8	− 9	− 6	−4	−2	0
December	0	+ 2	+ 3	+7	+4	− 2	− 6	− 8	− 6	−4	−2	−1

Sheridan, Wyo.

(Records cover period July, 1913, to April, 1916, inclusive.)

January	+ 8	+ 6	+ 6	+6	− 3	−12	−16	−15	− 5	+2	+5	+ 7
February	+ 7	+ 7	+ 7	+5	− 6	−17	−19	−17	− 7	+1	+5	+ 7
March	+10	+10	+13	+8	− 6	−16	−20	−19	−13	+1	+7	+ 8
April	+14	+15	+16	+1	−13	−20	−22	−21	−17	−3	+5	+10
May	+14	+17	+16	+1	−10	−16	−19	−18	−16	−2	+7	+11
June	+15	+18	+14	−5	−15	−20	−21	−20	−15	−3	+8	+13
July	+14	+19	+18	−2	−13	−16	−21	−21	−17	−7	+8	+11
August	+17	+22	+22	+2	−17	−26	−28	−27	−22	−5	+5	+11
September	+15	+17	+18	+4	−16	−25	−26	−25	−17	+1	+9	+14
October	+13	+13	+14	+8	−13	−18	−28	−25	−14	+2	+3	+11
November	+ 9	+ 9	+11	+9	− 8	−21	−27	−26	−11	+1	+3	+ 6
December	+ 7	+ 6	+ 7	+7	− 3	−16	−22	−21	− 7	+2	+4	+ 6

TABLE 6.—*Corrections to be applied to the average monthly values of the relative humidity at 8ª and 8ᵖ (75th meridian time), as given in Table 1, to obtain the averages for the correspondingly numbered hours of the day (local standard time)*—Continued.

Boise, Idaho.

(Records cover period May, 1911, to May, 1915, inclusive.)

Month.	A. M.						P. M.					
	2	4	6	8	10	NOON.	2	4	6	8	10	12
January	+ 4	+ 5	+ 6	+ 6	+3	− 3	− 7	− 8	− 6	0	+1	+2
February	+ 8	+10	+11	+11	+6	− 2	− 8	−10	−10	− 2	+2	+5
March	+10	+12	+15	+14	+4	− 6	−11	−15	−15	− 7	−1	+5
April	+ 9	+12	+15	+12	+2	− 8	−14	−16	−16	− 9	−3	+4
May	+10	+14	+17	+10	−1	−10	−16	−18	−18	−10	−3	+4
June	+ 9	+14	+18	+10	+1	− 8	−13	−17	−18	−11	−3	+5
July	+ 7	+13	+17	+11	0	− 8	−13	−16	−18	−13	−7	+1
August	+ 8	+13	+17	+14	+2	− 6	−12	−16	−16	−11	−6	+2
September	+ 6	+11	+14	+15	+4	− 5	−11	−15	−14	− 8	−2	+2
October	+ 9	+11	+14	+15	+4	− 7	−14	−17	−14	− 5	+1	+5
November	+ 5	+ 7	+ 9	+11	+6	− 5	−12	−13	− 9	− 2	+1	+3
December	+ 4	+ 5	+ 7	+ 6	+4	− 4	−10	−12	− 6	− 1	+2	+4

Sacramento, Cal.

(Records cover period July, 1913, to April, 1916, inclusive.)

January	+ 6	+ 7	+ 9	+ 9	+5	+ 1	− 9	−10	− 5	−2	+ 1	+ 4
February	+10	+10	+12	+11	+5	− 6	−14	−15	− 9	−3	+ 3	+ 8
March	+15	+16	+18	+20	+6	− 8	−16	−19	−14	−3	+ 6	+12
April	+16	+17	+19	+13	0	−13	−18	−21	−15	−4	+ 6	+11
May	+16	+20	+19	+10	−5	−15	−20	−22	−16	0	+10	+14
June	+20	+24	+26	+14	−2	−15	−24	−26	−22	−4	+ 8	+16
July	+16	+20	+24	+16	+2	−11	−21	−25	−21	−9	+ 2	+10
August	+15	+21	+24	+18	+3	−13	−23	−26	−20	−9	+ 3	+11
September	+16	+20	+23	+16	+1	−14	−22	−24	−19	−6	+ 4	+10
October	+13	+17	+20	+18	+2	−12	−20	−21	−15	−6	+ 2	+ 9
November	+11	+13	+16	+15	+5	−10	−17	−18	−12	−5	+ 1	+ 8
December	+ 6	+ 6	+ 7	+ 7	+5	− 4	−10	−10	− 3	+1	+ 4	+ 5

Fresno, Cal.

(Records cover period May, 1912, to April, 1916, inclusive.)

January	+ 9	+ 9	+ 9	+ 8	+2	− 7	−14	−14	− 5	+ 1	+5	+ 8
February	+12	+13	+14	+13	+1	−11	−19	−19	−10	0	+7	+11
March	+17	+18	+19	+13	−3	−15	−22	−22	−15	− 3	+6	+13
April	+18	+21	+22	+10	−5	−17	−22	−23	−19	− 8	+4	+12
May	+15	+20	+22	+ 8	−8	−14	−20	−22	−20	−12	0	+ 8
June	+12	+18	+21	+ 9	−2	−10	−16	−20	−20	−13	−2	+ 5
July	+11	+16	+18	+10	0	− 9	−14	−18	−18	−11	−2	+ 6
August	+11	+15	+19	+11	+1	− 8	−15	−18	−17	−11	−3	+ 6
September	+12	+16	+20	+12	−1	−11	−17	−20	−18	−12	−3	+ 5
October	+11	+15	+18	+12	−2	−12	−17	−19	−15	− 9	−1	+ 6
November	+11	+14	+16	+13	−3	−15	−21	−20	−11	− 3	+3	+ 9
December	+10	+11	+12	+12	+3	− 8	−15	−16	− 5	+ 2	+7	+10

San Francisco, Cal.

(Records cover period May, 1911, to April, 1916, inclusive.)

January	+5	+ 5	+ 7	+7	+ 1	− 4	− 9	− 9	−4	−1	+2	+3
February	+7	+ 7	+ 7	+6	+ 1	− 7	−13	−10	−3	0	+3	+6
March	+7	+ 8	+ 8	+6	− 2	−12	−14	−12	−5	0	+2	+4
April	+8	+ 8	+ 9	+1	− 7	−13	−14	−10	−5	0	+2	+5
May	+7	+ 7	+ 7	−1	− 9	−12	−13	− 9	−4	+2	+4	+6
June	+6	+ 7	+ 6	−2	−11	−15	−13	−10	−4	+2	+4	+6
July	+7	+ 7	+ 7	+1	− 9	−14	−13	−11	−3	+4	+5	+7
August	+6	+ 7	+ 6	+3	− 7	−13	−13	−10	−3	+2	+4	+5
September	+7	+ 8	+ 9	+2	−10	−18	−17	−13	−4	0	+3	+6
October	+8	+ 9	+10	+4	− 8	−19	−21	−14	−6	−2	+1	+6
November	+9	+10	+10	+8	− 1	−11	−17	−13	−8	−4	+2	+5
December	+5	+ 6	+ 7	+7	+ 2	− 6	− 9	− 9	−3	0	+4	+5

TABLE 7.—*The average daily maximum temperature with corresponding computed depression of the wet-bulb thermometer; also the approximate average minimum relative humidity computed from the mean 8ᵖ (75th meridian) vapor pressure and the average daily maximum temperature.*

(For the months of April, July, and October, largely for the 20-year period 1895-1914, inclusive.)

Atlantic Coast and Appalachian Mountains region.

Stations.	April.			July.			October.		
	Average maximum temperature.	Average depression of wet-bulb.	Approximate average minimum relative humidity.	Average maximum temperature.	Average depression of wet-bulb.	Approximate average minimum relative humidity.	Average maximum temperature.	Average depression of wet-bulb.	Approximate average minimum relative humidity.
	°F.	°F.	Perct.	°F.	°F.	Perct.	°F.	°F.	Perct.
Albany, N. Y.	56	9.0	50	82	12.5	53	60	8.0	58
Asheville, N. C.	65	11.1	48	82	11.5	56	66	10.0	53
Atlanta, Ga.	70	12.1	47	87	13.0	53	71	11.2	51
Atlantic City, N. J.	54	6.4	62	79	8.5	66	63	6.5	67
Augusta, Ga.	74	14.0	43	91	14.8	50	75	11.5	52
Baltimore, Md.	62	10.3	48	86	13.8	51	66	9.5	55
Binghamton, N. Y.	54	9.2	47	81	14.0	49	60	9.1	52
Block Island, R. I.	49	5.0	67	74	6.8	70	59	5.5	70
Boston, Mass.	54	7.8	54	80	11.7	55	60	7.5	60
Burlington, Vt.	50	8.0	49	79	13.4	49	57	8.0	55
Charleston, S. C.	72	10.2	56	88	11.0	61	74	8.5	63
Charlotte, N. C.	70	13.8	41	88	14.5	50	70	11.0	51
Columbia, S. C.	74	14.8	40	90	14.7	50	74	12.5	48
Concord, N. H.	54	9.5	45	81	13.5	49	59	9.2	50
Eastport, Me.	45	5.2	63	69	9.0	59	53	5.2	68
Elkins, W. Va.	60	10.2	47	82	12.2	54	65	11.5	46
Harrisburg, Pa.	60	10.2	47	84	13.5	50	62	8.7	56
Hatteras, N. C.	64	6.2	68	83	7.7	70	70	6.0	72
Jacksonville, Fla.	78	12.8	50	90	12.7	56	78	9.5	62
Key West, Fla.	80	9.5	62	89	11.2	60	83	8.5	67
Lynchburg, Va.	66	12.2	44	87	13.4	52	68	10.5	52
Macon, Ga.	74	13.5	45	90	14.0	52	75	12.7	48
Nantucket, Mass.	49	5.0	68	74	7.2	68	58	4.8	73
New Haven, Conn.	55	7.9	53	80	11.0	57	62	8.0	59
New York, N. Y.	57	8.6	52	82	12.2	54	63	8.2	59
Norfolk, Va.	65	9.5	54	87	12.0	57	69	8.7	60
Northfield, Vt.	50	7.2	54	77	11.0	56	55	7.3	58
Philadelphia, Pa.	60	9.5	50	85	13.8	51	65	9.2	55
Portland, Me.	50	7.2	54	76	11.0	55	57	7.2	60
Raleigh, N. C.	69	12.8	44	88	13.7	52	70	10.5	53
Richmond, Va.	67	12.5	43	88	16.0	46	69	10.7	52
Savannah, Ga.	75	12.0	51	90	12.7	56	75	9.2	61
Scranton, Pa.	57	9.2	49	82	12.7	52	62	8.6	56
Thomasville, Ga.	79	14.2	46	90	13.0	55	78	12.0	53
Washington, D. C.	63	11.0	46	86	13.0	53	66	9.8	56
Wilmington, N. C.	70	10.5	53	87	11.2	61	73	9.5	59
Wytheville, Va.	62	9.8	51	81	11.1	57	64	9.4	54

Gulf district.

Birmingham, Ala.	72	12.5	47	88	13.0	54	74	12.0	50	Shreveport, La.	76	13.2	47	92	15.5	49	77	13.0	48
Corpus Christi, Tex.	75	7.0	70	87	8.9	67	79	8.8	65	Tampa, Fla.	80	12.8	51	89	11.7	59	82	11.2	57
Galveston, Tex.	74	7.2	68	88	10.3	63	78	9.0	63	Taylor, Tex.	78	14.0	46	92	15.0	50	79	14.2	46
Meridian, Miss.	75	12.5	49	90	14.0	52	76	12.5	50	Vicksburg, Miss.	75	12.8	48	90	13.3	54	76	12.0	51
Mobile, Ala.	75	10.2	57	90	12.3	57	77	10.8	57										
Montgomery, Ala.	76	13.8	45	91	14.8	50	76	12.8	49										
New Orleans, La.	76	10.8	56	89	12.0	58	78	10.8	57										
Palestine, Tex.	76	12.5	50	91	15.0	50	78	13.2	48										
Pensacola, Fla.	74	9.5	60	87	10.1	63	77	10.5	57										
San Antonio, Tex.	80	15.0	44	94	19.0	41	81	15.2	43										

Ohio Valley and Great Lakes region.

Alpena, Mich.	46	5.5	61	75	10.5	56	54	5.8	65	Louisville, Ky.	66	11.8	45	88	16.0	46	69	12.0	47
Buffalo, N. Y.	50	6.4	59	76	9.2	61	58	6.8	63	Marquette, Mich.	46	6.5	55	74	11.4	53	54	6.7	60
Canton, N. Y.	50	7.5	52	79	13.0	50	56	7.3	58	Milwaukee, Wis.	51	6.6	58	78	11.2	55	58	6.8	63
Chattanooga, Tenn.	70	13.2	43	88	14.5	50	72	12.0	49	Nashville, Tenn.	69	12.4	45	89	15.0	49	71	12.2	47
Chicago, Ill.	54	7.3	58	80	10.7	56	60	7.3	62	Oswego, N. Y.	50	6.5	58	77	10.5	57	57	6.8	62
Cincinnati, Ohio.	63	11.0	46	86	15.0	47	66	10.5	51	Parkersburg, W. Va.	63	10.0	50	85	12.8	53	66	10.2	52
Cleveland, Ohio.	54	7.4	57	79	11.5	55	59	7.0	62	Pittsburgh, Pa.	61	10.2	48	85	14.8	47	65	10.5	50
Columbus, Ohio.	61	10.2	50	85	14.5	48	64	9.8	52	Port Huron, Mich.	51	6.9	57	78	11.2	55	58	7.0	61
Detroit, Mich.	54	7.6	55	81	13.0	50	60	8.2	57	Rochester, N. Y.	53	8.0	52	80	13.0	50	59	8.0	57
Duluth, Minn.	46	7.1	51	75	12.0	51	52	6.5	60	Sandusky, Ohio.	55	7.5	57	82	12.5	53	61	7.5	61
Erie, Pa.	52	6.9	58	78	10.8	57	60	8.0	58	Sault Ste. Marie, Mich.	46	6.5	55	74	11.8	53	52	5.6	65
Escanaba, Mich.	46	6.4	56	75	10.2	57	53	5.2	68	Syracuse, N. Y.	52	8.5	49	78	12.0	53	58	8.0	56
Evansville, Ind.	64	11.0	47	88	14.7	49	69	12.0	47	Toledo, Ohio.	56	8.5	52	82	13.0	51	61	8.2	57
Grand Haven, Mich.	52	7.0	57	77	10.7	56	58	6.7	63										
Grand Rapids, Mich.	54	8.1	52	81	13.9	48	59	7.8	58										
Green Bay, Wis.	52	7.6	53	80	12.7	51	59	7.2	60										
Houghton, Mich.	46	7.2	50	76	12.5	50	55	7.5	57										
Indianapolis, Ind.	62	10.0	50	85	14.2	49	64	9.8	51										
Knoxville, Tenn.	68	12.5	44	87	14.0	51	70	11.0	51										
Lexington, Ky.	63	12.0	42	85	13.0	52	66	11.0	48										

Mississippi Valley.

Cairo, Ill.	67	10.2	52	87	12.0	57	60	10.0	55	Little Rock, Ark.	72	12.8	46	90	14.4	51	73	11.2	53
Charles City, Iowa.	56	8.2	53	82	12.5	53	60	8.5	55	Madison, Wis.	54	8.3	51	80	12.5	52	58	7.8	57
Columbia, Mo.	66	11.2	47	88	12.7	53	70	12.5	46	Memphis, Tenn.	71	11.2	51	89	12.9	55	72	10.8	54
Davenport, Iowa.	60	10.0	48	85	14.0	49	62	9.0	54	Peoria, Ill.	61	10.2	48	84	13.2	51	64	9.8	52
Des Moines, Iowa.	61	10.6	46	85	14.5	48	64	10.5	49	St. Louis, Mo.	65	10.5	50	87	14.1	50	68	10.8	51
Dubuque, Iowa.	59	10.2	46	85	15.0	46	61	9.0	54	St. Paul, Minn.	56	9.8	45	82	14.5	46	57	8.5	53
Fort Smith, Ark.	72	13.0	45	91	15.5	49	74	13.2	46	Springfield, Ill.	62	10.3	49	86	14.7	48	66	10.8	49
Kansas City, Mo.	65	11.8	45	88	14.0	50	68	12.0	46	Springfield, Mo.	66	11.1	47	85	12.9	53	68	11.2	49
Keokuk, Iowa.	62	9.8	51	86	14.0	50	65	10.0	52										
La Crosse, Wis.	57	10.0	44	83	14.0	47	59	9.2	50										

TABLE 7.—*The average daily maximum temperature with corresponding computed depression of the wet-bulb thermometer; also the approximate average minimum relative humidity computed from the mean 8P (75th meridian) vapor pressure and the average daily maximum temperature*—Continued.

Plains region.

Stations.	April.			July.			October.			Stations.	April.			July.			October.		
	Average maximum temperature.	Average depression of wet-bulb.	Approximate average minimum relative humidity.	Average maximum temperature.	Average depression of wet-bulb.	Approximate average minimum relative humidity.	Average maximum temperature.	Average depression of wet-bulb.	Approximate average minimum relative humidity.		Average maximum temperature.	Average depression of wet-bulb.	Approximate average minimum relative humidity.	Average maximum temperature.	Average depression of wet-bulb.	Approximate average minimum relative humidity.	Average maximum temperature.	Average depression of wet-bulb.	Approximate average minimum relative humidity.
	°F.	°F.	Perct.	°F.	°F.	Perct.	°F.	°F.	Perct.		°F.	°F.	Perct.	°F.	°F.	Perct.	°F.	°F.	Perct.
Abilene, Tex.	76	17.0	34	96	21.0	36	76	15.0	41	Moorhead, Minn.	52	7.5	54	80	12.3	53	55	7.5	57
Amarillo, Tex.	69	16.9	28	87	19.0	37	70	14.8	37	North Platte, Nebr.	62	12.6	38	86	16.8	43	66	14.0	36
Bismarck, N. Dak.	54	9.4	46	82	15.7	43	58	10.7	43	Oklahoma, Okla.	71	13.2	44	90	16.7	45	73	13.8	43
Concordia, Kans.	66	13.2	39	89	17.0	43	68	12.2	45	Omaha, Nebr.	62	11.0	45	86	15.0	47	64	10.8	48
Del Rio, Tex.	82	17.5	38	95	19.0	41	81	15.8	42	Pierre, S. Dak.	60	12.8	35	87	20.0	34	64	13.8	35
Devils Lake, N. Dak.	51	8.8	46	79	13.2	49	54	9.3	46	Rapid City, S. Dak.	57	11.5	38	84	19.7	33	62	13.5	34
Dodge City, Kans.	68	15.0	34	90	19.3	38	70	14.2	37	Sioux City, Iowa.	60	11.4	42	84	15.8	44	63	11.5	44
Fort Worth, Tex.	75	14.8	41	92	19.0	39	78	15.0	43	Valentine, Nebr.	59	12.8	34	85	18.4	37	61	12.8	37
Huron, S. Dak.	58	11.0	41	84	15.8	44	61	11.8	41	Wichita, Kans.	68	13.2	41	89	16.9	44	70	13.2	43
Lincoln, Nebr.	62	11.8	42	87	16.0	44	67	12.2	44	Williston, N. Dak.	55	10.5	41	81	17.4	37	57	10.8	41

Rocky Mountains and Plateau region.

Boise, Idaho.	62	14.2	31	89	26.9	19	64	13.8	35	Pocatello, Idaho.	58	12.4	35	86	25.0	21	62	13.8	33
Cheyenne, Wyo.	54	11.4	34	81	20.0	29	59	13.5	31	Pueblo, Colo.	65	17.2	23	88	23.5	26	68	17.2	26
Denver, Colo.	60	14.4	28	86	21.7	27	65	16.1	27	Reno, Nev.	64	16.5	24	88	26.0	20	67	16.8	27
Durango, Colo.	59	14.8	25	84	21.7	27	64	15.7	27	Roswell, N. Mex.	74	20.0	23	91	21.3	33	72	15.8	35
El Paso, Tex.	79	25.9	11	94	26.0	24	77	20.8	24	Salt Lake City, Utah.	60	13.9	31	88	25.7	21	63	13.5	33
Flagstaff, Ariz.	58	14.5	25	81	20.2	28	62	15.0	28	Santa Fe, N. Mex.	60	16.0	21	81	20.6	28	62	14.5	30
Grand Junction, Colo.	66	17.2	24	92	28.3	18	67	16.4	28	Sheridan, Wyo.	58	12.5	34	86	22.0	28	64	15.0	30
Havre, Mont.	57	11.0	40	82	19.3	34	58	9.8	47	Spokane, Wash.	59	13.0	33	83	23.2	22	59	10.4	45
Helena, Mont.	54	11.5	35	20	20.7	27	56	10.8	40	Tonopah, Nev.	61	16.2	21	86	26.7	17	61	14.8	28
Kalispell, Mont.	56	11.6	36	79	19.0	31	56	9.0	50										
Lander, Wyo.	56	13.0	30	83	22.3	24	60	13.2	33	Walla Walla, Wash.	64	12.2	42	88	24.2	24	64	10.0	51
Lewiston, Idaho.	65	14.2	34	89	24.0	26	64	12.2	42	Winnemucca, Nev.	60	14.8	27	88	27.3	17	64	15.2	29
Miles City, Mont.	59	9.4	50	87	19.0	37	61	10.0	49	Yellowstone Park, Wyo.	50	10.2	37	76	17.8	32	53	10.8	37
Modena, Utah.	61	15.9	23	87	26.8	18	65	16.5	25	Yuma, Ariz.	86	26.5	17	106	31.0	23	88	24.7	23
Phoenix, Ariz.	84	26.2	16	104	32.5	19	86	24.5	22										

Pacific coast.

Eureka, Cal.	55	5.5	68	60	5.5	70	60	5.5	70	San Jose, Cal.	71	13.0	45	81	15.5	43	74	4.5	41
Fresno, Cal.	74	17.4	31	100	34.0	13	78	19.2	29	San Luis Obispo, Cal.	68	11.8	47	77	14.5	43	75	14.8	41
Los Angeles, Cal.	70	12.2	47	82	15.0	45	76	13.7	45	Seattle, Wash.	58	9.2	50	73	12.2	49	58	5.5	69
North Head, Wash.	53	4.6	71	62	5.2	73	58	4.8	73	Tatoosh Island, Wash.	51	4.4	72	60	4.2	77	54	3.5	79
Portland, Oreg.	61	10.8	45	78	15.0	43	62	7.8	60										
Red Bluff, Cal.	70	15.2	35	96	30.5	17	76	18.0	31										
Roseburg, Oreg.	62	11.0	45	81	18.2	35	64	9.0	56										
Sacramento, Cal.	69	13.0	43	89	21.8	31	75	15.8	38										
San Diego, Cal.	65	8.5	59	72	7.8	66	70	8.4	62										
San Francisco, Cal.	62	8.8	55	64	7.2	64	67	9.7	55										

TABLE 8.—*The mean vapor pressures (inches) and temperatures (°F.) at 8 a. m. and 8 p. m. (75th meridian time), at regular Weather Bureau stations for the intervals indicated in parentheses—usually for the 20 years 1895 to 1914, inclusive.*

[The means of the 8 a + 8 p vapor pressures are given in Table 9.]

Atlantic coast and Appalachian Mountains region.

Stations.		Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
Albany, N. Y. (1895–1914):														
8 a. m.	vapor pressure	0.103	0.089	0.141	0.207	0.325	0.447	0.539	0.508	0.414	0.291	0.182	0.121	0.281
	temperature	21.2	18.0	30.4	42.7	55.9	64.6	69.5	66.0	58.8	47.3	36.3	25.2	44.7
8 p. m.	vapor pressure	0.113	0.103	0.154	0.226	0.346	0.476	0.558	0.530	0.443	0.298	0.190	0.130	0.297
	temperature	24.9	23.7	35.2	48.4	61.5	69.6	74.6	71.6	64.4	52.5	39.8	29.0	49.6
Asheville, N. C. (Sept. 1902–1914):														
8 a. m.	vapor pressure	0.169	0.158	0.232	0.280	0.391	0.516	0.576	0.571	0.470	0.302	0.205	0.168	0.336
	temperature	32.8	31.6	41.6	48.1	57.5	64.1	66.6	65.2	59.7	47.6	38.2	32.4	48.8
8 p. m.	vapor pressure	0.191	0.181	0.249	0.295	0.409	0.548	0.612	0.613	0.514	0.339	0.226	0.179	0.363
	temperature	39.7	39.6	50.1	56.4	65.4	70.3	72.7	71.6	67.4	57.2	47.7	39.1	56.4
Atlanta, Ga. (1895–1914):														
8 a. m.	vapor pressure	0.204	0.186	0.276	0.327	0.457	0.593	0.674	0.674	0.556	0.369	0.262	0.206	0.399
	temperature	38.3	37.0	47.5	54.2	64.7	71.4	73.0	72.3	67.6	56.1	46.6	39.0	55.6
8 p. m.	vapor pressure	0.225	0.200	0.298	0.344	0.460	0.588	0.677	0.682	0.563	0.385	0.279	0.224	0.410
	temperature	45.2	45.3	56.7	63.4	72.9	78.4	79.0	78.6	75.0	64.5	54.3	45.1	63.2
Atlantic City, N. J. (1897–1914):														
8 a. m.	vapor pressure	0.156	0.131	0.194	0.252	0.378	0.518	0.645	0.643	0.536	0.375	0.234	0.168	0.352
	temperature	31.5	28.4	38.0	46.8	57.5	66.2	72.3	71.8	66.2	55.6	43.5	33.8	51.0
8 p. m.	vapor pressure	0.161	0.143	0.202	0.260	0.382	0.524	0.650	0.648	0.545	0.386	0.239	0.175	0.360
	temperature	34.2	32.2	40.5	48.0	57.4	65.8	71.8	72.3	67.7	58.1	46.4	36.8	52.6
Augusta, Ga. (1895–1914):														
8 a. m.	vapor pressure	0.225	0.217	0.318	0.370	0.517	0.667	0.739	0.744	0.630	0.416	0.293	0.229	0.447
	temperature	40.0	39.8	50.0	56.6	67.2	74.1	76.2	75.1	70.0	57.1	46.6	40.2	57.7
8 p. m.	vapor pressure	0.250	0.233	0.327	0.364	0.494	0.642	0.722	0.738	0.636	0.451	0.319	0.257	0.453
	temperature	49.0	50.0	60.2	66.4	75.7	80.1	81.4	80.4	76.6	65.6	56.4	48.8	65.9
Baltimore, Md. (1895–1914):														
8 a. m.	vapor pressure	0.140	0.123	0.188	0.243	0.382	0.521	0.613	0.599	0.501	0.325	0.212	0.149	0.333
	temperature	31.0	28.6	39.4	49.8	61.7	69.8	74.8	72.4	66.0	53.9	42.8	33.1	52.0
8 p. m.	vapor pressure	0.149	0.134	0.202	0.269	0.406	0.545	0.633	0.626	0.534	0.352	0.223	0.158	0.353
	temperature	35.1	34.0	45.0	55.4	66.3	73.6	78.0	76.1	70.1	58.4	47.3	37.4	56.4
Binghamton, N. Y. (Oct. 1896–1914):														
8 a. m.	vapor pressure	0.110	0.093	0.144	0.197	0.316	0.435	0.518	0.474	0.398	0.269	0.175	0.119	0.271
	temperature	21.3	17.7	28.7	38.7	50.6	58.4	63.1	59.1	52.9	43.1	33.6	24.2	41.0
8 p. m.	vapor pressure													
	temperature													
Block Island, R. I. (1895–1914):														
8 a. m.	vapor pressure	0.143	0.121	0.169	0.224	0.332	0.457	0.589	0.577	0.486	0.344	0.234	0.163	0.320
	temperature	30.4	27.3	34.8	42.6	52.5	61.0	67.7	67.4	62.9	54.0	44.1	34.3	48.2
8 p. m.	vapor pressure	0.149	0.131	0.182	0.233	0.336	0.461	0.591	0.587	0.493	0.350	0.239	0.169	0.327
	temperature	32.3	29.9	36.7	43.6	52.1	60.5	67.4	67.3	63.3	54.9	45.5	36.2	49.1
Boston, Mass. (1895–1914):														
8 a. m.	vapor pressure	0.119	0.101	0.154	0.209	0.218	0.431	0.538	0.516	0.430	0.299	0.200	0.136	0.279
	temperature	26.3	24.0	34.5	44.5	56.0	64.6	70.5	67.8	61.4	51.0	40.2	30.0	47.6
8 p. m.	vapor pressure	0.127	0.112	0.166	0.225	0.330	0.452	0.557	0.538	0.452	0.313	0.210	0.144	0.302
	temperature	29.8	28.7	38.0	47.3	57.8	66.6	72.0	69.8	63.6	54.1	43.3	33.6	50.4
Burlington, Vt. (Apr. 1906–1914):														
8 a. m.	vapor pressure	0.087	0.068	0.114	0.175	0.290	0.394	0.489	0.462	0.373	0.254	0.157	0.104	0.247
	temperature	16.2	11.9	25.6	38.4	52.4	61.3	67.0	63.7	55.9	45.5	33.9	22.0	41.2
8 p. m.	vapor pressure													
	temperature													
Charleston, S. C. (1895–1914):														
8 a. m.	vapor pressure	0.262	0.256	0.358	0.415	0.581	0.719	0.785	0.795	0.706	0.490	0.343	0.270	0.498
	temperature	45.2	44.7	54.1	60.6	70.6	77.0	79.4	78.6	74.2	63.4	53.2	45.9	62.2
8 p. m.	vapor pressure	0.291	0.282	0.381	0.439	0.602	0.748	0.809	0.817	0.734	0.533	0.381	0.297	0.526
	temperature	50.3	50.0	58.1	63.9	72.3	77.9	80.4	80.0	76.7	67.9	58.4	51.2	65.6
Charlotte, N. C. (1895–1914):														
8 a. m.	vapor pressure	0.184	0.168	0.257	0.308	0.450	0.598	0.676	0.670	0.550	0.359	0.243	0.187	0.388
	temperature	36.0	35.0	45.7	53.2	64.0	70.9	73.7	72.1	66.6	54.5	44.3	36.8	54.4
8 p. m.	vapor pressure	0.198	0.179	0.264	0.299	0.430	0.577	0.658	0.669	0.553	0.369	0.252	0.200	0.387
	temperature	43.7	43.6	54.8	62.0	72.0	76.6	78.8	74.1	73.4	62.8	53.0	44.0	61.8
Columbia, S. C. (June, 1901–1914):														
8 a. m.	vapor pressure	0.218	0.205	0.303	0.356	0.491	0.635	0.709	0.719	0.607	0.396	0.264	0.218	0.427
	temperature	39.9	39.1	49.7	56.2	66.2	72.5	75.3	73.8	68.7	56.7	46.1	39.9	57.0
8 p. m.	vapor pressure	0.228	0.214	0.298	0.344	0.461	0.614	0.698	0.713	0.600	0.407	0.272	0.231	0.423
	temperature	48.6	48.6	59.8	65.7	74.1	78.4	80.2	78.6	75.3	65.5	56.2	48.2	64.9
Concord, N. H. (Nov., 1902–1914):														
8 a. m.	vapor pressure	0.090	0.072	0.127	0.187	0.313	0.419	0.522	0.472	0.380	0.252	0.154	0.100	0.257
	temperature	18.0	14.2	27.7	40.0	53.7	62.2	67.8	62.8	54.7	44.0	35.7	22.1	41.9
8 p. m.	vapor pressure													
	temperature													
Eastport, Me. (1895–1914):														
8 a. m.	vapor pressure	0.096	0.084	0.126	0.175	0.254	0.341	0.424	0.413	0.350	0.264	0.180	0.116	0.235
	temperature	18.9	17.5	27.2	36.9	46.2	54.2	59.4	58.6	54.1	46.2	35.4	24.3	39.9
8 p. m.	vapor pressure	0.105	0.101	0.143	0.189	0.263	0.336	0.420	0.414	0.359	0.274	0.188	0.125	0.243
	temperature	22.4	22.3	31.2	39.1	47.2	54.1	59.5	59.5	55.2	47.9	37.7	26.9	41.9
Elkins, W. Va. (8 a—1899–1914; 8 p—1901–1914):														
8 a. m.	vapor pressure	0.144	0.122	0.184	0.230	0.352	0.477	0.530	0.512	0.415	0.289	0.174	0.138	0.296
	temperature	27.5	23.6	35.6	42.8	54.4	61.7	64.7	62.1	55.1	43.8	34.1	27.2	41.5
8 p. m.	vapor pressure	0.154	0.136	0.202	0.242	0.367	0.510	0.586	0.566	0.472	0.298	0.188	0.151	0.323
	temperature	32.2	30.4	42.6	49.1	62.1	67.9	70.8	68.4	62.0	50.6	40.1	31.9	50.8
Harrisburg, Pa. (8 a—1895–1914; 8 p—June, 1898–Aug., 1902, missing):														
8 a. m.	vapor pressure	0.119	0.105	0.161	0.215	0.347	0.472	0.566	0.541	0.450	0.294	0.189	0.130	0.299
	temperature	26.9	24.2	35.4	46.1	58.3	66.2	71.2	68.3	61.6	49.9	39.5	29.7	48.1
8 p. m.	vapor pressure	0.130	0.120	0.182	0.244	0.382	0.511	0.579	0.559	0.484	0.311	0.204	0.141	0.321
	temperature	30.9	30.4	42.3	53.7	65.2	71.8	76.3	73.9	68.1	56.0	44.7	33.7	53.9

TABLE 8.—*The mean vapor pressures (inches) and temperatures (°F.) at 8 a. m. and 8 p. m. (75th meridian time), at regular Weather Bureau stations for the intervals indicated in parentheses—usually for the 20 years 1895 to 1914, inclusive*—Continued.

Atlantic coast and Appalachian Mountains region—Continued.

Stations.		Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
Hatteras, N. C. (1895–1914):														
8 a. m.	vapor pressure	0.264	0.240	0.331	0.392	0.558	0.715	0.809	0.803	0.700	0.521	0.367	0.278	0.498
	temperature	44.2	42.3	51.2	57.7	67.9	74.7	78.6	78.4	74.4	65.1	54.4	46.0	61.7
8 p. m.	vapor pressure	0.281	0.260	0.343	0.406	0.556	0.706	0.796	0.796	0.696	0.522	0.382	0.295	0.503
	temperature	46.1	44.3	52.2	57.7	66.4	73.1	77.1	77.1	73.4	64.6	55.4	47.8	61.3
Jacksonville, Fla. (1895–1914):														
8 a. m.	vapor pressure	0.324	0.326	0.430	0.481	0.630	0.758	0.813	0.823	0.757	0.569	0.420	0.335	0.556
	temperature	49.0	49.5	58.1	63.4	71.7	76.8	78.5	78.1	75.2	66.2	56.7	49.7	64.4
8 p. m.	vapor pressure	0.354	0.350	0.439	0.482	0.620	0.744	0.794	0.807	0.761	0.599	0.459	0.364	0.564
	temperature	55.4	56.2	63.9	68.2	74.2	78.5	79.7	79.4	77.1	70.4	62.5	56.0	68.5
Key West, Fla. (1895–1914):														
8 a. m.	vapor pressure	0.555	0.559	0.615	0.636	0.736	0.811	0.826	0.835	0.834	0.769	0.653	0.587	0.701
	temperature	66.7	67.3	71.7	74.6	78.7	81.7	82.9	83.0	81.8	78.1	72.8	68.5	75.6
8 p. m.	vapor pressure	0.563	0.567	0.612	0.630	0.722	0.801	0.817	0.826	0.830	0.762	0.653	0.592	0.698
	tempearture	68.0	68.7	72.2	74.4	78.1	80.8	82.1	82.4	81.3	78.3	73.4	69.6	75.8
Lynchburg, Va. (1895–1914):														
8 a. m.	vapor pressure	0.137	0.124	0.197	0.256	0.406	0.550	0.629	0.609	0.485	0.307	0.196	0.143	0.337
	temperature	32.5	30.6	41.5	50.4	61.6	69.3	73.0	70.8	63.6	50.9	41.0	33.3	51.5
8 p. m.	vapor pressure	0.164	0.148	0.225	0.281	0.438	0.584	0.660	0.652	0.541	0.352	0.223	0.165	0.369
	temperature	38.8	38.5	50.2	59.3	69.0	74.3	77.9	76.3	70.3	58.3	48.4	39.5	58.4
Macon, Ga. (May, 1899–1914):														
8 a. m.	vapor pressure	0.229	0.223	0.343	0.380	0.521	0.661	0.733	0.737	0.627	0.417	0.285	0.234	0.449
	temperature	40.1	40.0	50.3	56.5	67.0	73.7	75.8	74.7	69.4	57.1	46.1	40.6	57.8
8 p. m.	vapor pressure													
	temperature													
Mount Weather, Va. (Nov., 1904–1914):														
8 a. m.	vapor pressure	0.139	0.110	0.172	0.226	0.336	0.467	0.542	0.523	0.445	0.296	0.173	0.129	0.296
	temperature	28.6	24.2	35.3	45.0	56.7	63.2	67.8	65.8	60.7	44.9	38.6	29.2	46.7
8 p. m.	vapor pressure	0.142	0.122	0.190	0.254	0.354	0.495	0.543	0.534	0.458	0.310	0.185	0.135	0.310
	temperature	31.2	28.6	40.2	50.6	61.2	67.0	71.2	69.2	64.6	53.6	41.6	31.9	50.9
Nantucket, Mass. (1895–1914):														
8 a. m.	vapor pressure	0.153	0.131	0.180	0.237	0.338	0.456	0.588	0.578	0.485	0.358	0.250	0.174	0.327
	temperature	31.0	28.1	35.9	43.8	53.3	61.7	68.3	67.8	63.3	54.5	44.4	34.9	48.9
8 p. m.	vapor pressure	0.156	0.137	0.184	0.235	0.328	0.438	0.569	0.564	0.474	0.350	0.249	0.178	0.322
	temperature	32.4	29.9	36.3	42.5	50.6	58.4	65.4	65.1	61.3	53.5	44.8	36.0	48.0
New Haven, Conn. (1895–1914):														
8 a. m.	vapor pressure	0.116	0.097	0.151	0.212	0.325	0.442	0.562	0.542	0.445	0.299	0.191	0.128	0.292
	temperature	25.5	23.2	33.9	44.6	56.4	64.7	70.5	67.9	61.4	50.2	39.1	28.7	47.2
8 p. m.	vapor pressure	0.125	0.113	0.165	0.227	0.338	0.466	0.583	0.568	0.481	0.326	0.207	0.142	0.312
	temperature	29.6	28.8	38.1	47.9	58.5	66.8	72.2	70.5	64.7	54.5	43.1	33.1	50.6
New York, N. Y. (1895–1914):														
8 a. m.	vapor pressure	0.132	0.112	0.167	0.225	0.348	0.471	0.580	0.566	0.475	0.321	0.213	0.145	0.313
	temperature	28.9	25.9	35.9	45.6	57.3	65.6	70.9	69.5	63.6	52.8	42.2	31.9	49.2
8 p. m.	vapor pressure	0.137	0.124	0.180	0.242	0.358	0.486	0.594	0.587	0.494	0.339	0.220	0.153	0.326
	temperature	32.0	30.8	40.5	50.4	61.2	69.4	74.7	73.3	67.8	57.2	45.6	35.4	53.2
Norfolk, Va. (1895–1914):														
8 a. m.	vapor pressure	0.197	0.177	0.257	0.319	0.468	0.615	0.727	0.720	0.601	0.419	0.277	0.206	0.415
	temperature	37.8	35.6	45.6	53.4	64.0	71.6	75.8	74.9	69.8	58.7	47.3	39.3	56.2
8 p. m.	vapor perssure	0.208	0.192	0.271	0.335	0.476	0.629	0.726	0.725	0.606	0.429	0.286	0.216	0.425
	temperature	42.2	40.4	49.8	57.1	66.3	73.4	77.8	76.4	71.5	61.5	52.0	43.5	59.3
Northfield, Vt. (1895–1914):														
8 a. m.	vapor pressure	0.077	0.066	0.110	0.174	0.288	0.400	0.490	0.446	0.353	0.235	0.146	0.092	0.240
	temperature	12.0	10.0	23.1	37.4	51.9	60.6	65.3	60.6	52.7	41.8	30.1	17.4	38.6
8 p. m.	vapor pressure	0.085	0.078	0.125	0.193	0.313	0.426	0.519	0.476	0.386	0.251	0.157	0.101	0.257
	temperature	16.7	16.7	28.6	41.6	54.9	62.5	66.9	62.7	55.8	45.3	33.2	21.0	42.2
Philadelphia, Pa. (1895–1914):														
8 a. m.	vapor pressure	0.139	0.123	0.183	0.244	0.364	0.491	0.601	0.580	0.487	0.327	0.219	0.153	0.326
	temperature	30.5	28.0	38.2	48.3	59.9	67.5	73.3	71.1	64.8	53.5	43.1	33.4	51.0
8 p. m.	vapor pressure	0.147	0.136	0.196	0.259	0.388	0.508	0.609	0.595	0.505	0.342	0.227	0.161	0.339
	temperature	34.3	33.3	43.7	53.9	64.8	72.3	77.1	75.1	69.3	58.2	47.2	37.1	55.5
Portland, Me. (1895–1914):														
8 a. m.	vapor pressure	0.091	0.081	0.128	0.181	0.278	0.386	0.494	0.468	0.378	0.258	0.165	0.109	0.251
	temperature	19.3	18.1	29.2	40.6	52.3	61.2	67.0	64.1	57.4	46.7	35.2	24.1	42.9
8 p. m.	vapor pressure	0.098	0.094	0.141	0.194	0.282	0.386	0.493	0.480	0.397	0.277	0.175	0.115	0.261
	temperature	23.8	23.7	33.3	42.5	52.4	61.3	67.0	65.0	59.4	50.0	38.5	27.9	45.4
Raleigh, N. C. (1895–1914):														
8 a. m.	vapor pressure	0.183	0.166	0.254	0.308	0.457	0.605	0.689	0.685	0.563	0.369	0.245	0.193	0.393
	temperature	36.2	34.6	45.4	53.2	64.2	71.5	74.6	72.8	66.8	55.1	44.6	37.0	54.7
8 p. m.	vapor pressure	0.196	0.182	0.266	0.310	0.458	0.604	0.691	0.688	0.575	0.387	0.256	0.199	0.401
	temperature	43.4	43.3	54.3	61.6	71.0	76.4	78.9	77.5	73.1	62.2	52.4	43.9	61.5
Richmond, Va. (Nov. 1897–1914):														
8 a. m.	vapor pressure	0.171	0.148	0.232	0.287	0.434	0.574	0.671	0.666	0.545	0.366	0.224	0.170	0.374
	temperature	34.1	31.4	42.9	51.1	62.6	70.5	75.1	72.6	66.2	54.2	42.7	34.4	53.2
8 p. m.	vapor pressure													
	temperature													
Savannah, Ga. (1895–1914):														
8 a. m.	vapor pressure	0.268	0.260	0.369	0.424	0.584	0.721	0.784	0.795	0.710	0.486	0.347	0.273	0.502
	temperature	45.5	45.4	54.8	60.7	70.2	76.2	77.9	77.2	72.7	62.2	52.7	45.9	61.8
8 p. m.	vapor pressure	0.293	0.286	0.385	0.439	0.594	0.732	0.794	0.803	0.731	0.528	0.378	0.298	0.522
	temperature	51.8	51.8	59.8	64.8	72.5	77.5	79.4	78.9	75.8	67.5	59.0	52.1	65.9
Scranton, Pa. (1901–1914):														
8 a. m.	vapor pressure	0.119	0.104	0.160	0.214	0.331	0.450	0.541	0.496	0.423	0.288	0.180	0.127	0.286
	temperature	25.1	21.0	33.2	43.1	56.1	63.7	68.6	64.7	58.8	47.8	36.9	27.6	45.6
8 p. m.	vapor pressure	0.124	0.109	0.176	0.230	0.350	0.479	0.565	0.528	0.454	0.311	0.192	0.135	0.304
	temperature	28.2	26.0	39.5	49.6	62.1	69.5	74.2	70.8	64.9	53.3	41.0	30.8	50.8

TABLE 8.—*The mean vapor pressures (inches) and temperatures (°F.) at 8 a. m. and 8 p. m. (75th meridian time), at regular Weather Bureau stations for the intervals indicated in parentheses—usually for the 20 years 1895 to 1914, inclusive*—Continued.

Atlantic coast and Appalachian Mountains region—Continued.

Stations.		Jan	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
Thomasville, Ga. (8a=1906–1914; 8p=1907–1914):														
8 a. m.	vapor pressure	0.297	0.276	0.374	0.449	0.563	0.710	0.787	0.786	0.710	0.481	0.336	0.296	0.505
	temperature	46.2	44.8	53.9	60.9	68.6	74.8	76.2	75.6	72.5	60.8	50.2	45.6	60.8
8 p. m.	vapor pressure	0.340	0.314	0.400	0.460	0.544	0.688	0.780	0.794	0.720	0.510	0.367	0.328	0.520
	temperature	53.8	53.4	62.4	67.5	74.4	78.1	78.3	77.9	74.9	65.8	57.0	52.0	66.3
Washington, D. C. (1895–1914):														
8 a. m.	vapor pressure	0.137	0.123	0.193	0.255	0.406	0.543	0.639	0.620	0.513	0.334	0.210	0.145	0.343
	temperature	30.1	27.8	39.2	49.2	60.4	68.6	73.5	71.1	64.4	51.2	40.8	31.8	50.8
8 p. m.	vapor pressure	0.149	0.135	0.205	0.266	0.421	0.571	0.659	0.651	0.546	0.356	0.220	0.155	0.361
	temperature	35.3	34.3	46.0	56.4	66.6	73.2	77.3	75.2	68.7	56.8	46.4	36.9	56.1
Wilmington, N. C. (1895–1914):														
8 a. m.	vapor pressure	0.231	0.217	0.317	0.373	0.535	0.681	0.766	0.766	0.647	0.443	0.304	0.238	0.460
	temperature	41.2	40.1	52.3	57.0	67.1	73.8	77.0	75.8	70.0	59.0	48.6	41.8	58.7
8 p. m.	vapor pressure	0.255	0.243	0.337	0.390	0.548	0.697	0.776	0.787	0.677	0.480	0.338	0.263	0.483
	temperature	47.2	46.6	55.3	60.8	69.4	75.4	78.2	76.1	73.7	64.4	55.0	48.0	62.5
Wytheville, Va. (1903–1914):														
8 a. m.	vapor pressure	0.155	0.141	0.209	0.258	0.377	0.504	0.571	0.556	0.458	0.285	0.179	0.150	0.320
	temperature	29.9	28.2	38.4	46.1	56.6	63.7	66.6	64.8	58.6	46.4	36.0	29.6	47.1
8 p. m.	vapor pressure	0.174	0.160	0.236	0.285	0.403	0.540	0.607	0.597	0.498	0.324	0.202	0.165	0.349
	temperature	34.8	34.6	45.8	52.9	62.6	68.4	71.5	69.7	64.1	52.9	41.1	34.3	52.8

Gulf States.

Birmingham, Ala. (8a = Sept. 1904–1914; 8p = Aug. 1906–1914):														
8 a. m.	vapor pressure	0.226	0.208	0.301	0.355	0.483	0.620	0.695	0.696	0.593	0.390	0.265	0.221	0.422
	temperature	40.9	39.8	50.3	55.8	64.9	72.4	73.8	73.0	68.7	56.6	46.9	40.6	57.0
8 p. m.	vapor pressure	0.260	0.237	0.310	0.366	0.482	0.620	0.703	0.704	0.626	0.417	0.279	0.245	0.435
	temperature	48.5	48.7	60.3	65.7	73.1	79.5	79.7	79.8	76.6	65.9	55.9	47.1	65.1
Corpus Christi, Tex. (1895–1914):														
8 a. m.	vapor pressure	0.368	0.361	0.496	0.591	0.722	0.821	0.863	0.870	0.786	0.610	0.492	0.353	0.611
	temperature	52.5	52.2	61.4	67.1	73.6	77.9	78.8	78.7	75.9	68.6	61.1	52.0	66.7
8 p. m.	vapor pressure	0.402	0.399	0.523	0.610	0.741	0.837	0.860	0.871	0.805	0.642	0.532	0.387	0.635
	temperature	58.6	58.6	66.5	71.6	77.1	81.9	83.4	83.7	81.8	75.1	66.4	58.4	71.9
Galveston, Tex. (1895–1914):														
8 a. m.	vapor pressure	0.361	0.351	0.474	0.563	0.684	0.796	0.844	0.856	0.774	0.602	0.480	0.360	0.595
	temperature	52.0	51.3	59.9	66.0	73.0	78.7	80.6	80.7	77.7	69.3	61.1	52.8	66.9
8 p. m.	vapor pressure	0.381	0.374	0.491	0.574	0.698	0.794	0.828	0.845	0.769	0.606	0.499	0.377	0.603
	temperature	55.4	55.5	63.0	68.9	75.6	81.3	82.9	83.2	81.0	73.2	64.5	56.3	70.0
Meridian, Miss. (8a=1895, 1899–1914; 8p=1895, July, 1906–1914):														
8 a. m.	vapor pressure	0.244	0.226	0.330	0.392	0.526	0.662	0.727	0.731	0.614	0.404	0.295	0.237	0.449
	temperature	41.0	39.9	50.2	56.4	65.5	72.5	74.2	73.6	68.1	55.9	45.8	40.8	56.9
8 p. m.	vapor pressure	0.297	0.262	0.355	0.421	0.512	0.656	0.736	0.746	0.666	0.448	0.332	0.279	0.476
	temperature	51.4	50.9	61.9	67.9	74.7	80.1	81.3	81.0	77.5	65.1	56.7	49.5	66.4
Mobile, Ala. (1895–1914):														
8 a. m.	vapor pressure	0.291	0.284	0.410	0.463	0.598	0.741	0.792	0.799	0.697	0.481	0.358	0.294	0.517
	temperature	46.4	46.5	56.3	61.3	69.7	76.5	77.8	77.1	73.1	61.8	52.9	46.9	62.2
8 p. m.	vapor pressure	0.323	0.317	0.440	0.492	0.616	0.742	0.797	0.810	0.732	0.526	0.406	0.322	0.543
	temperature	53.4	53.9	62.6	67.9	75.4	80.3	81.2	80.7	78.6	70.2	61.3	53.6	68.3
Montgomery, Ala. (1895–1914):														
8 a. m.	vapor pressure	0.249	0.242	0.346	0.394	0.529	0.672	0.747	0.752	0.634	0.426	0.307	0.250	0.462
	temperature	42.2	42.0	52.2	57.7	67.0	74.0	75.5	74.8	70.1	58.0	48.4	42.4	58.7
8 p. m.	vapor pressure	0.279	0.266	0.369	0.405	0.518	0.643	0.719	0.749	0.632	0.439	0.323	0.265	0.467
	temperature	51.5	52.1	63.0	68.7	77.2	81.9	82.2	81.8	79.1	69.2	59.5	51.0	68.1
New Orleans, La. (1895–1914):														
8 a. m.	vapor pressure	0.330	0.322	0.445	0.503	0.635	0.760	0.814	0.826	0.744	0.532	0.408	0.323	0.554
	temperature	49.7	49.4	58.5	63.4	71.1	77.4	78.8	78.6	75.3	65.3	56.6	49.8	64.5
8 p. m.	vapor pressure	0.353	0.340	0.457	0.504	0.623	0.734	0.791	0.806	0.743	0.550	0.440	0.344	0.557
	temperature	55.9	56.3	65.5	70.1	76.6	81.2	81.8	81.6	79.4	71.2	62.9	55.3	69.8
Palestine, Tex. (1895–1914):														
8 a. m.	vapor pressure	0.260	0.248	0.358	0.423	0.570	0.699	0.755	0.745	0.636	0.439	0.344	0.246	0.477
	temperature	43.3	42.7	52.6	58.0	65.8	72.4	74.5	74.1	68.8	58.4	51.1	42.5	58.7
8 p. m.	vapor pressure	0.270	0.269	0.371	0.444	0.591	0.692	0.728	0.720	0.627	0.459	0.352	0.258	0.482
	temperature	52.2	52.9	64.1	69.8	76.5	82.8	85.1	85.9	80.8	70.0	60.8	51.2	69.3
Pensacola, Fla. (8a=1895–1914; 8p=1895, Apr. 1899; Apr. 1912–1914):														
8 a. m.	vapor pressure	0.305	0.297	0.424	0.482	0.614	0.754	0.805	0.811	0.710	0.494	0.375	0.308	0.532
	temperature	48.4	48.4	58.0	63.3	72.0	78.1	79.2	78.6	74.8	64.6	55.5	48.9	64.2
8 p. m.	vapor pressure	0.350	0.345	0.453	0.504	0.628	0.756	0.804	0.811	0.733	0.534	0.422	0.336	0.555
	temperature	54.6	53.8	61.7	67.5	75.0	80.0	81.4	80.7	78.6	70.7	62.0	54.6	68.4
San Antonio, Tex. (1895–1914):														
8 a. m.	vapor pressure	0.272	0.267	0.373	0.454	0.599	0.711	0.753	0.750	0.663	0.472	0.374	0.258	0.495
	temperature	46.3	45.8	55.0	60.3	67.7	73.3	74.9	74.7	70.5	61.1	54.1	45.5	60.8
8 p. m.	vapor pressure	0.284	0.272	0.359	0.444	0.574	0.624	0.642	0.626	0.594	0.458	0.376	0.275	0.461
	temperature	58.1	58.9	69.2	73.9	80.0	86.6	88.3	88.5	83.4	74.4	64.7	56.2	73.5
Shreveport, La. (1895–1914):														
8 a. m.	vapor pressure	0.249	0.232	0.340	0.409	0.554	0.692	0.752	0.748	0.633	0.429	0.319	0.235	0.466
	temperature	42.8	41.7	52.1	58.0	66.3	73.5	75.5	75.0	69.4	57.6	49.5	41.9	58.6
8 p. m.	vapor pressure	0.260	0.251	0.349	0.421	0.566	0.676	0.734	0.741	0.632	0.445	0.331	0.249	0.471
	temperature	51.6	52.2	63.4	69.6	77.0	83.2	84.8	85.0	80.4	69.8	60.5	50.7	69.0
Tampa, Fla. (1895–1914):														
8 a. m.	vapor pressure	0.389	0.394	0.487	0.525	0.654	0.768	0.819	0.832	0.785	0.621	0.480	0.398	0.596
	temperature	54.7	55.2	61.8	66.4	73.3	77.6	79.2	78.9	76.3	69.3	61.0	54.9	67.3
8 p. m.	vapor pressure	0.421	0.416	0.504	0.525	0.635	0.750	0.798	0.808	0.766	0.623	0.501	0.432	0.598
	temperature	60.8	61.1	67.8	70.8	76.6	78.9	79.3	79.4	78.2	73.4	66.8	61.1	71.2

TABLE 8.—*The mean vapor pressures (inches) and temperatures (°F.) at 8 a. m. and 8 p. m. (75th meridian time), at regular Weather Bureau stations for the intervals indicated in parentheses—usually for the 20 years 1895 to 1914, inclusive*—Continued.

Gulf States—Continued.

Stations.		Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
Taylor, Tex. (1902–1914):														
8 a. m.	vapor pressure	0.264	0.253	0.364	0.442	0.585	0.700	0.752	0.752	0.647	0.456	0.364	0.259	0.486
	temperature	43.3	42.9	52.8	58.7	66.3	72.7	74.5	74.4	69.1	58.5	52.1	42.9	59.0
8 p. m.	vapor pressure													
	temperature													
Vicksburg, Miss. (1895–1914):														
8 a. m.	vapor pressure	0.257	0.239	0.343	0.411	0.546	0.692	0.760	0.766	0.642	0.430	0.324	0.246	0.471
	temperature	43.9	43.0	53.1	58.7	66.9	73.7	75.4	75.0	70.0	58.6	50.5	43.8	59.3
8 p. m.	vapor pressure	0.269	0.254	0.358	0.415	0.549	0.694	0.765	0.792	0.670	0.460	0.329	0.256	0.485
	temperature	51.8	52.1	63.4	68.6	76.1	81.4	82.2	81.9	78.6	68.7	60.3	51.0	68.0

Ohio Valley and Great Lakes region.

Alpena, Mich. (1895–1914):														
8 a. m.	vapor pressure	0.092	0.076	0.112	0.178	0.276	0.390	0.473	0.456	0.380	0.255	0.168	0.114	0.248
	temperature	18.3	13.5	23.3	37.0	49.5	59.2	64.1	61.4	54.8	43.5	33.2	23.5	40.1
8 p. m.	vapor pressure	0.100	0.089	0.124	0.190	0.284	0.402	0.483	0.482	0.405	0.274	0.177	0.119	0.261
	temperature	21.3	18.8	28.5	40.7	51.7	62.1	68.0	65.8	59.2	47.9	36.0	25.7	43.8
Buffalo, N. Y. (1895–1914):														
8 a. m.	vapor pressure	0.114	0.096	0.140	0.199	0.313	0.440	0.536	0.502	0.422	0.285	0.191	0.132	0.281
	temperature	24.4	20.2	30.1	41.1	53.1	62.9	68.6	66.5	60.7	49.5	38.5	28.5	45.3
8 p. m.	vapor pressure	0.121	0.105	0.151	0.211	0.331	0.457	0.552	0.521	0.443	0.302	0.200	0.137	0.294
	temperature	26.4	22.9	33.1	43.8	56.0	66.3	72.0	70.5	64.4	52.8	40.9	30.2	48.3
Canton, N. Y. (July 1906–1914):														
8 a. m.	vapor pressure	0.086	0.070	0.120	0.186	0.303	0.401	0.496	0.462	0.372	0.261	0.163	0.109	0.252
	temperature	14.6	10.5	24.9	38.2	52.6	61.4	66.9	63.4	55.6	45.1	33.6	21.5	40.7
8 p. m.	vapor pressure													
	temperature													
Chattanooga, Tenn. (1895–1914):														
8 a. m.	vapor pressure	0.182	0.173	0.255	0.309	0.442	0.581	0.652	0.653	0.540	0.352	0.241	0.189	0.381
	temperature	36.2	35.2	46.1	52.8	62.8	70.2	72.7	71.6	65.9	52.9	43.4	36.7	53.0
8 p. m.	vapor pressure	0.206	0.183	0.279	0.317	0.452	0.595	0.662	0.676	0.566	0.384	0.263	0.207	0.399
	temperature	44.4	44.6	56.3	63.6	73.0	78.8	80.2	80.0	70.5	64.4	53.6	44.0	66.1
Chicago, Ill. (1895–1914):														
8 a. m.	vapor pressure	0.116	0.103	0.157	0.223	0.336	0.463	0.553	0.541	0.441	0.292	0.190	0.128	0.295
	temperature	23.2	20.7	32.7	43.7	55.1	64.6	70.1	68.8	61.7	50.0	37.7	26.6	46.2
8 p. m.	vapor pressure	0.127	0.117	0.177	0.238	0.349	0.471	0.571	0.582	0.473	0.321	0.207	0.139	0.314
	temperature	26.9	25.7	37.4	48.0	59.6	68.2	74.8	73.6	67.5	56.2	42.5	30.2	50.9
Cincinnati, Ohio (1895–1914):														
8 a. m.	vapor pressure	0.148	0.126	0.192	0.253	0.384	0.513	0.590	0.571	0.464	0.302	0.204	0.152	0.325
	temperature	30.0	26.6	38.9	48.3	60.0	68.1	72.1	69.7	62.9	50.2	40.3	31.3	49.9
8 p. m.	vapor pressure	0.161	0.143	0.220	0.267	0.401	0.521	0.585	0.577	0.480	0.325	0.220	0.165	0.339
	temperature	34.8	33.6	47.0	57.7	69.2	77.1	80.7	79.8	73.5	60.6	47.6	36.3	58.8
Cleveland, Ohio (1895–1914):														
8 a. m.	vapor pressure	0.120	0.102	0.157	0.220	0.341	0.461	0.546	0.513	0.422	0.282	0.192	0.129	0.290
	temperature	25.5	21.4	32.5	43.5	55.7	64.4	69.4	66.9	60.4	49.2	38.7	28.6	46.4
8 p. m.	vapor pressure	0.130	0.113	0.175	0.236	0.363	0.481	0.555	0.539	0.457	0.312	0.206	0.138	0.309
	temperature	28.4	25.7	37.3	48.3	61.3	69.7	74.4	72.8	67.0	55.1	42.5	31.3	51.2
Columbus, Ohio (1895–1914):														
8 a. m.	vapor pressure	0.136	0.167	0.179	0.242	0.370	0.496	0.577	0.541	0.440	0.286	0.196	0.143	0.314
	temperature	26.8	23.3	35.5	45.8	57.8	66.0	69.9	67.2	60.5	47.9	37.6	28.7	47.2
8 p. m.	vapor pressure	0.147	0.134	0.202	0.263	0.382	0.509	0.572	0.549	0.459	0.312	0.212	0.152	0.324
	temperature	31.2	29.6	42.9	53.7	65.9	73.8	78.0	76.3	70.0	57.1	44.0	32.8	54.6
Detroit, Mich. (1895–1914):														
8 a. m.	vapor pressure	0.114	0.097	0.144	0.210	0.325	0.451	0.530	0.511	0.425	0.282	0.186	0.128	0.284
	temperature	22.9	19.0	30.1	42.1	54.5	63.7	68.5	66.0	59.5	47.6	36.5	26.3	44.7
8 p. m.	vapor pressure	0.123	0.107	0.158	0.226	0.352	0.477	0.535	0.521	0.434	0.297	0.198	0.136	0.297
	temperature	26.1	23.8	35.1	48.0	60.8	69.8	74.7	72.4	65.4	53.3	40.2	29.1	49.9
Duluth, Minn. (1895–1914):														
8 a. m.	vapor pressure	0.062	0.058	0.095	0.155	0.234	0.352	0.438	0.426	0.333	0.221	0.122	0.079	0.215
	temperature	7.2	6.0	19.2	34.5	44.8	55.1	61.0	59.4	51.8	40.8	26.6	13.8	35.0
8 p. m.	vapor pressure	0.070	0.071	0.106	0.158	0.237	0.361	0.445	0.438	0.345	0.232	0.140	0.087	0.224
	temperature	12.4	14.0	27.0	40.6	50.4	60.4	67.2	65.0	57.2	46.0	30.8	18.1	40.8
Erie, Pa. (1895–1914):														
8 a. m.	vapor pressure	0.121	0.103	0.154	0.211	0.332	0.460	0.539	0.506	0.424	0.284	0.193	0.136	0.289
	temperature	25.7	21.2	31.9	43.2	55.8	65.0	70.3	67.9	61.7	50.3	39.7	29.4	46.8
8 p. m.	vapor pressure	0.128	0.111	0.165	0.226	0.349	0.479	0.551	0.533	0.444	0.300	0.202	0.140	0.302
	temperature	27.9	24.3	34.9	45.5	58.2	67.3	72.7	70.7	64.6	53.4	42.1	31.4	49.4
Escanaba, Mich. (1899–1914):														
8 a. m.	vapor pressure	0.079	0.065	0.103	0.161	0.252	0.378	0.465	0.455	0.367	0.249	0.155	0.097	0.236
	temperature	13.6	9.5	21.0	34.4	46.5	58.0	63.0	61.1	53.5	49.4	31.6	20.0	38.5
8 p. m.	vapor pressure	0.087	0.078	0.121	0.173	0.267	0.406	0.497	0.488	0.393	0.270	0.165	0.105	0.254
	temperature	18.2	16.2	27.2	39.2	51.3	63.2	68.4	66.7	58.6	48.6	35.4	23.6	43.0
Evansville, Ind. (1898–1914):														
8 a. m.	vapor pressure	0.164	0.141	0.219	0.281	0.426	0.575	0.646	0.633	0.516	0.337	0.221	0.162	0.360
	temperature	31.4	28.2	41.2	49.9	61.8	70.0	73.6	71.7	64.7	52.3	41.5	32.2	51.5
8 p. m.	vapor pressure													
	temperature													
Grand Haven, Mich. (1895–1914, but July 1903–July 1906, missing):														
8 a. m.	vapor pressure	0.120	0.101	0.139	0.208	0.312	0.420	0.525	0.515	0.419	0.279	0.190	0.138	0.280
	temperature	24.0	20.1	28.9	40.9	52.1	61.6	66.9	64.9	57.8	46.8	37.0	28.4	44.1
8 p. m.	vapor pressure	0.124	0.110	0.153	0.219	0.322	0.439	0.517	0.530	0.434	0.302	0.199	0.141	0.291
	temperature	26.1	23.7	33.3	45.9	57.0	66.7	72.3	70.4	63.3	51.9	40.0	30.0	48.4
Grand Rapids, Mich. (1903–1914):														
8 a. m.	vapor pressure	0.115	0.095	0.144	0.202	0.319	0.446	0.509	0.491	0.411	0.274	0.184	0.132	0.277
	temperature	22.6	18.1	29.4	40.1	52.9	62.9	67.1	64.5	57.7	45.8	36.2	28.0	43.7
8 p. m.	vapor pressure	0.121	0.106	0.158	0.217	0.333	0.455	0.504	0.502	0.431	0.289	0.194	0.136	0.287
	temperature	25.1	22.9	35.5	47.7	60.5	71.5	75.8	72.7	65.1	52.1	39.7	29.4	49.8

TABLE 8.—*The mean vapor pressures (inches) and temperatures (°F.) at 8 a. m. and 8 p. m. (75th meridian time), at regular Weather Bureau stations for the intervals indicated in parentheses—usually for the 20 years 1895 to 1914, inclusive*—Continued.

Ohio Valley and Great Lakes region—Continued.

Stations.		Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
Green Bay, Wis. (1895–1914):														
8 a. m.	vapor pressure	0.076	0.068	0.109	0.182	0.292	0.420	0.495	0.474	0.384	0.248	0.150	0.093	0.249
	temperature	13.9	11.4	24.1	38.1	50.7	61.1	65.2	62.6	55.4	43.6	31.2	19.4	39.7
8 p. m.	vapor pressure	0.088	0.086	0.134	0.205	0.322	0.459	0.524	0.504	0.411	0.272	0.165	0.105	0.273
	temperature	19.0	19.2	31.5	45.4	58.6	69.0	73.5	71.0	62.6	50.3	35.8	23.6	46.6
Houghton, Mich. (1901–1914):														
8 a. m.	vapor pressure	0.070	0.061	0.097	0.156	0.242	0.363	0.453	0.429	0.355	0.244	0.148	0.093	0.225
	temperature	13.6	9.9	20.5	35.1	45.5	57.0	62.1	59.5	53.0	43.3	31.7	20.6	37.6
8 p. m.	vapor pressure													
	temperature													
Indianapolis, Ind. (1895–1914):														
8 a. m.	vapor pressure	0.132	0.115	0.176	0.247	0.366	0.499	0.555	0.545	0.440	0.288	0.192	0.137	0.308
	temperature	26.2	23.1	35.7	46.4	58.4	66.9	70.7	68.2	61.1	48.7	38.0	28.2	47.6
8 p. m.	vapor pressure	0.144	0.133	0.206	0.280	0.407	0.511	0.591	0.567	0.472	0.308	0.206	0.147	0.331
	temperature	30.8	29.9	43.6	55.2	67.1	75.4	79.3	78.0	70.9	58.5	44.7	32.6	55.5
Knoxville, Tenn. (1895–1914):														
8 a. m.	vapor pressure	0.177	0.166	0.248	0.296	0.441	0.585	0.656	0.654	0.535	0.343	0.228	0.182	0.376
	temperature	34.0	32.9	44.0	50.9	61.9	69.4	72.0	70.6	64.6	51.0	40.7	34.4	52.2
8 p. m.	vapor pressure	0.198	0.182	0.261	0.298	0.436	0.588	0.656	0.667	0.557	0.371	0.248	0.194	0.388
	temperature	41.6	41.7	53.7	61.2	71.1	77.2	78.6	77.9	73.7	62.1	50.9	41.3	60.9
Lexington, Ky. (1895–1914):														
8 a. m.	vapor pressure	0.156	0.136	0.210	0.241	0.406	0.549	0.621	0.601	0.487	0.309	0.211	0.160	0.343
	temperature	30.2	27.1	39.6	48.6	60.4	68.4	71.9	70.0	63.5	50.8	40.1	31.3	50.1
8 p. m.	vapor pressure													
	temperature													
Louisville, Ky. (1895–1914):														
8 a. m.	vapor pressure	0.158	0.137	0.211	0.272	0.409	0.548	0.621	0.603	0.494	0.320	0.216	0.162	0.346
	temperature	31.8	28.7	41.0	50.1	61.5	69.5	72.9	70.7	63.8	51.1	41.6	33.0	51.3
8 p. m.	vapor pressure	0.171	0.155	0.234	0.285	0.425	0.559	0.611	0.606	0.501	0.333	0.228	0.171	0.357
	temperature	37.2	36.1	49.5	59.3	70.8	78.3	81.7	80.5	74.6	62.0	49.5	38.1	59.8
Marquette, Mich. (1895–1914):														
8 a. m.	vapor pressure	0.081	0.070	0.101	0.163	0.247	0.356	0.435	0.432	0.354	0.239	0.151	0.099	0.227
	temperature	15.8	12.5	22.4	36.8	48.0	58.4	63.7	61.7	54.9	44.2	32.0	21.5	39.3
8 p. m.	vapor pressure	0.086	0.080	0.116	0.169	0.252	0.358	0.449	0.452	0.374	0.250	0.157	0.103	0.237
	temperature	18.2	16.7	26.5	39.2	50.0	59.8	65.8	64.2	57.6	47.2	34.1	23.7	41.9
Milwaukee, Wis. (1895–1914):														
8 a. m.	vapor pressure	0.097	0.088	0.137	0.201	0.296	0.424	0.518	0.514	0.417	0.279	0.174	0.114	0.272
	temperature	19.4	17.3	29.4	40.9	51.7	62.1	67.6	66.1	58.8	47.1	34.8	23.8	43.3
8 p. m.	vapor pressure	0.109	0.103	0.153	0.216	0.311	0.432	0.530	0.535	0.444	0.304	0.189	0.123	0.287
	temperature	23.5	22.9	34.1	45.1	55.8	65.9	72.3	71.0	64.2	53.0	39.4	27.2	47.9
Nashville, Tenn. (1895–1914):														
8 a. m.	vapor pressure	0.185	0.167	0.250	0.311	0.449	0.591	0.666	0.660	0.537	0.347	0.237	0.184	0.382
	temperature	35.3	33.1	44.8	52.3	62.6	70.9	73.7	72.0	65.4	52.4	43.1	35.8	53.4
8 p. m.	vapor pressure	0.198	0.184	0.271	0.316	0.449	0.587	0.661	0.667	0.542	0.360	0.252	0.198	0.390
	temperature	42.0	41.5	54.1	62.4	72.7	79.6	81.8	81.3	76.4	64.6	52.9	42.2	62.6
Oswego, N. Y. (1895–1914):														
8 a. m.	vapor pressure	0.109	0.096	0.139	0.198	0.305	0.424	0.523	0.494	0.407	0.274	0.184	0.128	0.273
	temperature	21.8	19.2	29.1	40.9	52.5	61.6	67.5	65.6	59.1	48.1	37.4	26.5	44.1
8 p. m.	vapor pressure	0.117	0.104	0.150	0.209	0.311	0.422	0.528	0.506	0.422	0.286	0.189	0.135	0.282
	temperature	24.8	22.9	32.7	43.8	55.2	63.4	70.1	68.7	62.5	51.6	39.9	28.9	47.0
Parkersburg, W. Va. (1895–1914):														
8 a. m.	vapor pressure	0.151	0.133	0.198	0.254	0.390	0.526	0.605	0.569	0.464	0.293	0.200	0.154	0.328
	temperature	29.7	26.3	38.3	47.3	59.0	66.7	70.5	68.0	60.9	47.9	33.7	30.8	48.3
8 p. m.	vapor pressure	0.168	0.152	0.223	0.285	0.424	0.569	0.637	0.616	0.516	0.334	0.224	0.169	0.360
	temperature	34.5	33.0	46.2	56.1	67.6	74.1	77.7	76.5	70.2	57.7	45.6	35.7	56.2
Pittsburgh, Pa. (1895–1914):														
8 a. m.	vapor pressure	0.139	0.121	0.179	0.236	0.362	0.489	0.566	0.531	0.444	0.293	0.199	0.146	0.309
	temperature	28.9	25.1	36.7	46.1	58.3	66.0	70.1	67.4	61.3	49.5	40.0	30.9	48.4
8 p. m.	vapor pressure	0.148	0.131	0.201	0.255	0.374	0.505	0.563	0.536	0.458	0.308	0.210	0.154	0.320
	temperature	32.7	30.4	43.3	53.7	66.0	73.1	76.9	75.4	69.8	57.5	45.0	34.5	54.8
Port Huron, Mich. (1895–1914):														
8 a. m.	vapor pressure	0.106	0.089	0.135	0.202	0.311	0.435	0.521	0.494	0.414	0.272	0.179	0.122	0.273
	temperature	21.2	17.2	28.2	40.4	52.6	62.3	67.3	64.7	58.0	46.0	35.1	25.2	43.1
8 p. m.	vapor pressure	0.114	0.100	0.149	0.212	0.326	0.446	0.530	0.514	0.436	0.294	0.193	0.129	0.287
	temperature	24.4	21.8	32.5	43.8	56.2	65.3	71.0	69.4	63.2	51.3	38.7	27.6	47.1
Rochester, N. Y. (1895–1914):														
8 a. m.	vapor pressure	0.107	0.094	0.139	0.198	0.307	0.424	0.508	0.477	0.400	0.271	0.180	0.125	0.269
	temperature	23.5	20.1	30.6	42.3	54.8	64.0	68.6	65.6	59.2	47.9	37.2	27.4	45.1
8 p. m.	vapor pressure	0.114	0.099	0.146	0.207	0.322	0.430	0.508	0.481	0.414	0.284	0.187	0.129	0.277
	temperature	25.5	22.8	33.3	45.3	58.2	67.0	71.9	69.3	62.8	51.2	39.6	29.2	48.0
Sandusky, Ohio (8p=1895–1901 and Aug. 1912–Dec. 1914):														
8 a. m.	vapor pressure	0.124	0.105	0.159	0.227	0.349	0.482	0.566	0.528	0.430	0.284	0.193	0.134	0.298
	temperature	25.6	21.3	33.0	44.1	57.0	65.8	70.4	68.4	61.6	49.4	38.4	28.2	46.9
8 p. m.	vapor pressure	0.136	0.112	0.165	0.246	0.366	0.504	0.577	0.566	0.452	0.326	0.208	0.144	0.316
	temperature	29.2	25.5	35.5	49.1	61.6	71.0	75.7	73.7	66.8	56.0	42.5	31.5	51.5
Sault Ste. Marie, Mich. (1895–1914):														
8 a. m.	vapor pressure	0.074	0.061	0.090	0.160	0.202	0.365	0.435	0.431	0.352	0.239	0.153	0.096	0.222
	temperature	11.8	7.4	17.2	33.8	46.1	55.6	60.0	58.6	51.9	41.4	30.6	19.0	36.1
8 p. m.	vapor pressure	0.085	0.077	0.109	0.169	0.261	0.368	0.445	0.440	0.371	0.255	0.164	0.106	0.238
	temperature	16.6	14.9	25.0	39.2	51.4	61.5	65.6	63.4	56.4	45.7	33.6	22.0	41.3
Syracuse, N. Y. (Sept. 1902–1914):														
8 a. m.	vapor pressure	0.110	0.091	0.141	0.189	0.307	0.426	0.509	0.473	0.402	0.271	0.175	0.119	0.268
	temperature	22.4	18.4	30.3	41.0	54.6	62.9	68.0	64.7	58.7	47.8	36.6	25.8	44.1
8 p. m.	vapor pressure													
	temperature													
Toledo, Ohio (1895–1914):														
8 a. m.	vapor pressure	0.120	0.101	0.154	0.221	0.344	0.466	0.549	0.517	0.425	0.278	0.187	0.125	0.291
	temperature	24.1	20.2	31.9	43.6	56.2	65.0	69.6	66.8	59.9	47.6	37.0	27.0	45.7
8 p. m.	vapor pressure	0.127	0.112	0.167	0.232	0.359	0.481	0.552	0.544	0.447	0.303	0.197	0.136	0.305
	temperature	27.6	25.6	37.5	49.7	62.4	71.1	76.0	73.8	67.0	54.8	41.6	30.1	51.4

TABLE 8.—*The mean vapor pressures (inches) and temperatures (°F.) at 8 a. m. and 8 p. m. (75th meridian time), at regular Weather Bureau stations for the intervals indicated in parentheses—usually for the 20 years 1895 to 1914, inclusive*—Continued.

Mississippi Valley.

Stations.		Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
Cairo, Ill. (1895–1914):														
8 a. m.	vapor pressure	0.170	0.150	0.231	0.316	0.463	0.607	0.690	0.678	0.552	0.352	0.233	0.169	0.384
	temperature	32.8	30.6	43.1	52.5	62.8	70.4	73.7	72.1	65.4	52.6	42.9	33.8	52.7
8 p. m.	vapor pressure	0.185	0.173	0.265	0.343	0.505	0.645	0.726	0.733	0.560	0.391	0.252	0.187	0.414
	temperature	39.0	38.3	51.9	61.1	71.7	79.1	81.6	80.7	74.4	62.5	51.4	39.8	61.0
Charles City, Iowa (1905–1914):														
8 a. m.	vapor pressure	0.074	0.079	0.132	0.206	0.320	0.467	0.535	0.520	0.399	0.242	0.154	0.099	0.269
	temperature	10.6	12.8	25.7	39.5	50.8	61.2	64.9	62.4	54.2	41.5	29.6	18.1	38.4
8 p. m.	vapor pressure	0.090	0.099	0.165	0.240	0.360	0.523	0.577	0.592	0.468	0.284	0.176	0.125	0.308
	temperature	16.4	20.5	35.0	51.0	62.0	72.8	77.4	74.1	64.4	50.6	36.4	23.5	48.7
Columbia, Mo. (1895–1911):														
8 a. m.	vapor pressure													
	temperature													
8 p. m.	vapor pressure	0.143	0.140	0.221	0.303	0.466	0.634	0.697	0.674	0.539	0.339	0.217	0.151	0.377
	temperature	31.7	31.4	46.4	57.3	67.8	76.2	79.9	78.2	69.8	57.8	44.7	33.2	56.2
Davenport, Iowa (1895–1914):														
8 a. m.	vapor pressure	0.103	0.094	0.152	0.228	0.357	0.490	0.561	0.546	0.438	0.278	0.177	0.118	0.295
	temperature	19.6	17.6	31.5	44.0	56.4	65.3	69.4	67.0	59.1	46.8	34.6	23.6	44.6
8 p. m.	vapor pressure	0.116	0.111	0.170	0.247	0.386	0.524	0.579	0.584	0.478	0.302	0.190	0.128	0.318
	temperature	25.2	24.9	39.7	54.9	66.9	75.9	80.6	78.3	68.9	56.4	41.5	28.5	53.5
Des Moines, Iowa (1895–1914):														
8 a. m.	vapor pressure	0.092	0.089	0.143	0.226	0.353	0.487	0.556	0.537	0.417	0.264	0.164	0.106	0.286
	temperature	17.9	17.2	30.5	43.3	55.5	64.4	68.5	66.4	57.8	45.7	33.4	22.1	43.6
8 p. m.	vapor pressure	0.110	0.109	0.166	0.246	0.379	0.516	0.575	0.581	0.473	0.294	0.183	0.121	0.313
	temperature	24.9	25.9	40.4	55.6	66.7	75.8	80.6	78.8	69.2	57.0	41.6	28.2	53.7
Dubuque, Iowa (Apr., 1896–1914):														
8 a. m.	vapor pressure	0.091	0.084	0.142	0.213	0.332	0.460	0.539	0.518	0.408	0.266	0.164	0.107	0.277
	temperature	16.8	15.3	29.4	42.3	54.9	63.5	67.9	65.2	57.1	45.7	32.8	21.3	42.7
8 p. m.	vapor pressure	0.104	0.102	0.160	0.231	0.356	0.493	0.550	0.548	0.443	0.289	0.175	0.117	0.297
	temperature	22.7	23.1	37.3	53.1	65.4	74.3	79.5	76.2	66.8	54.8	39.6	26.1	51.6
Fort Smith, Ark. (1895–1914):														
8 a. m.	vapor pressure	0.175	0.165	0.249	0.334	0.482	0.628	0.701	0.686	0.561	0.366	0.252	0.174	0.398
	temperature	34.9	34.0	45.8	54.2	63.4	71.4	74.7	73.0	66.3	53.5	44.5	35.2	54.2
8 p. m.	vapor pressure	0.193	0.188	0.268	0.349	0.520	0.644	0.708	0.690	0.580	0.383	0.267	0.190	0.415
	temperature	44.0	45.1	57.6	66.1	74.5	82.2	85.4	85.1	78.6	66.5	55.7	44.2	65.4
Hannibal, Mo. (1895–1914):														
8 a. m.	vapor pressure	0.120	0.110	0.175	0.258	0.403	0.542	0.611	0.586	0.471	0.298	0.192	0.130	0.325
	temperature	24.2	22.1	35.3	46.9	59.2	67.7	71.4	69.0	61.0	48.4	37.3	26.9	47.4
8 p. m.	vapor pressure													
	temperature													
Kansas City, Mo. (1895–1914):														
8 a. m.	vapor pressure	0.122	0.115	0.176	0.255	0.394	0.530	0.602	0.582	0.467	0.300	0.195	0.131	0.322
	temperature	25.7	24.1	36.3	48.0	59.1	67.2	71.9	70.4	62.5	50.7	39.1	28.2	48.6
8 p. m.	vapor pressure	0.139	0.139	0.210	0.280	0.420	0.552	0.622	0.616	0.501	0.312	0.212	0.147	0.346
	temperature	32.5	32.5	47.0	59.5	69.7	78.5	82.8	81.9	73.2	61.3	47.6	34.5	58.4
Keokuk, Iowa (1895–1914):														
8 a. m.	vapor pressure	0.110	0.100	0.163	0.250	0.387	0.527	0.579	0.570	0.452	0.292	0.186	0.122	0.312
	temperature	22.1	20.2	33.5	45.7	58.1	66.8	70.9	68.7	60.4	48.1	36.2	25.4	46.3
8 p. m.	vapor pressure	0.128	0.124	0.192	0.281	0.420	0.565	0.619	0.617	0.494	0.322	0.204	0.140	0.342
	temperature	28.0	27.6	42.2	56.0	67.5	76.4	80.9	79.1	69.9	57.6	43.5	30.8	55.0
La Crosse, Wis. (1895–1914):														
8 a. m.	vapor pressure	0.075	0.072	0.121	0.204	0.327	0.459	0.536	0.509	0.397	0.252	0.150	0.095	0.206
	temperature	12.8	11.7	26.6	41.2	53.4	62.4	66.1	63.1	55.4	44.1	33.5	18.8	40.8
8 p. m.	vapor pressure													
	temperature													
Little Rock, Ark. (1895–1914):														
8 a. m.	vapor pressure	0.200	0.181	0.279	0.352	0.495	0.642	0.715	0.706	0.582	0.385	0.270	0.196	0.417
	temperature	37.7	36.1	47.5	55.2	64.0	71.9	74.6	73.5	67.4	55.2	46.2	37.6	55.6
8 p. m.	vapor pressure	0.218	0.197	0.294	0.364	0.521	0.611	0.724	0.720	0.607	0.424	0.280	0.208	0.431
	temperature	45.8	46.0	58.5	66.1	74.5	81.3	83.9	83.5	78.1	66.7	56.5	45.7	65.5
Madison, Wis. (Sept., 1904–1914):														
8 a. m.	vapor pressure	0.085	0.080	0.132	0.194	0.306	0.449	0.517	0.507	0.411	0.254	0.162	0.106	0.267
	temperature	15.0	13.1	26.6	40.0	52.8	62.2	66.6	64.2	56.7	44.8	31.9	20.1	41.2
8 p. m.	vapor pressure	0.095	0.092	0.146	0.214	0.335	0.486	0.531	0.525	0.436	0.271	0.174	0.114	0.285
	temperature	19.5	20.6	34.6	48.3	60.4	71.0	75.5	72.9	64.8	51.6	38.0	25.1	48.5
Memphis, Tenn. (1895–1914):														
8 a. m.	vapor pressure	0.202	0.180	0.272	0.343	0.484	0.632	0.716	0.706	0.576	0.371	0.261	0.195	0.412
	temperature	38.3	36.3	47.9	54.7	65.1	72.6	75.2	74.1	68.2	55.9	46.8	38.2	56.2
8 p. m.	vapor pressure	0.223	0.203	0.314	0.383	0.523	0.666	0.749	0.759	0.622	0.419	0.283	0.218	0.447
	temperature	44.8	44.4	57.3	65.0	74.1	80.9	83.3	82.6	77.6	66.2	55.9	44.9	64.8
Peoria, Ill. (8a=1905–1914; 8p=1906–1914):														
8 a. m.	vapor pressure	0.120	0.104	0.164	0.235	0.367	0.506	0.577	0.560	0.449	0.278	0.181	0.130	0.305
	temperature	23.0	20.2	32.5	43.8	56.2	65.6	68.7	66.6	58.9	45.4	34.8	25.6	45.2
8 p. m.	vapor pressure	0.134	0.125	0.185	0.256	0.387	0.528	0.589	0.594	0.490	0.309	0.203	0.144	0.330
	temperature	27.5	28.2	40.8	54.0	66.1	76.4	79.7	77.3	67.7	54.4	42.4	30.2	53.7
St. Louis, Mo. (1895–1914):														
8 a. m.	vapor pressure	0.142	0.126	0.200	0.274	0.420	0.548	0.628	0.611	0.501	0.323	0.214	0.148	0.345
	temperature	28.9	26.6	39.2	49.9	61.3	69.7	73.6	71.8	64.4	52.1	41.4	31.0	50.8
8 p. m.	vapor pressure	0.156	0.147	0.227	0.310	0.451	0.567	0.637	0.633	0.533	0.347	0.233	0.164	0.367
	temperature	34.8	34.1	48.2	59.3	70.8	78.8	82.6	81.8	74.3	62.3	49.0	36.8	59.4
St. Paul, Minn. (1895–1914):														
8 a. m.	vapor pressure	0.068	0.067	0.113	0.185	0.297	0.431	0.498	0.470	0.363	0.234	0.137	0.085	0.246
	temperature	10.2	9.6	24.3	39.2	51.3	61.0	65.0	61.9	53.9	42.9	28.9	16.5	38.8
8 p. m.	vapor pressure	0.078	0.083	0.132	0.202	0.302	0.439	0.505	0.482	0.388	0.246	0.147	0.096	0.258
	temperature	16.5	18.4	33.6	51.6	63.3	72.4	77.3	74.6	65.3	52.2	35.1	21.8	48.5

TABLE 8.—*The mean vapor pressures (inches) and temperatures (°F.) at 8 a. m. and 8 p. m. (75th meridian time), at regular Weather Bureau stations for the intervals indicated in parentheses—usually for the 20 years 1895 to 1914, inclusive*—Continued.

Mississippi Valley—Continued.

Stations.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
Springfield, Ill. (1895–1914):													
8 a. m. vapor pressure	0.121	0.109	0.175	0.247	0.386	0.516	0.584	0.564	0.454	0.287	0.191	0.131	0.314
8 a. m. temperature	24.4	21.9	35.0	46.3	58.6	67.3	71.0	68.4	60.7	48.2	37.2	27.1	47.2
8 p. m. vapor pressure	0.135	0.129	0.203	0.274	0.416	0.537	0.595	0.600	0.490	0.311	0.207	0.144	0.337
8 p. m. temperature	29.5	29.0	43.3	56.3	68.1	76.3	80.7	78.7	70.4	58.3	44.3	31.9	55.6
Springfield, Mo. (1895–1914):													
8 a. m. vapor pressure	0.148	0.134	0.206	0.284	0.418	0.561	0.629	0.611	0.495	0.320	0.219	0.152	0.348
8 a. m. temperature	29.2	26.9	39.2	48.8	59.1	67.3	70.8	69.7	63.2	50.9	40.8	30.4	49.6
8 p. m. vapor pressure	0.164	0.155	0.225	0.299	0.433	0.576	0.635	0.625	0.512	0.332	0.242	0.165	0.362
8 p. m. temperature	36.0	35.9	49.5	59.6	69.4	77.1	80.6	80.3	72.8	60.9	49.0	36.9	58.9

Great Plains region.

Abilene, Tex. (1895–1914):													
8 a. m. vapor pressure	0.179	0.172	0.242	0.329	0.466	0.575	0.618	0.605	0.520	0.366	0.266	0.181	0.377
8 a. m. temperature	37.6	36.8	47.1	54.7	63.6	71.2	73.6	73.6	66.4	55.7	46.5	37.3	55.4
8 p. m. vapor pressure	0.188	0.174	0.230	0.310	0.434	0.504	0.535	0.525	0.489	0.366	0.276	0.197	0.352
8 p. m. temperature	49.2	50.1	63.3	70.3	77.7	85.5	87.9	88.3	80.1	68.2	57.3	47.4	69.1
Amarillo, Tex. (1895–1914):													
8 a. m. vapor pressure	0.119	0.116	0.150	0.216	0.332	0.453	0.517	0.501	0.410	0.265	0.173	0.120	0.281
8 a. m. temperature	28.5	26.8	35.7	44.3	54.2	63.2	66.5	65.7	58.4	46.9	36.6	28.2	46.8
8 p. m. vapor pressure	0.132	0.127	0.144	0.200	0.298	0.416	0.474	0.460	0.387	0.272	0.186	0.134	0.269
8 p. m. temperature	41.1	41.4	54.8	63.4	71.7	79.8	82.4	82.6	75.0	61.2	44.6	39.0	61.4
Bismarck, N. Dak. (1895–1914):													
8 a. m. vapor pressure	0.049	0.050	0.084	0.155	0.248	0.379	0.426	0.391	0.276	0.175	0.100	0.067	0.200
8 a. m. temperature	4.6	3.7	17.1	34.2	45.9	56.6	60.5	57.0	47.2	35.6	21.7	12.2	33.0
8 p. m. vapor pressure	0.053	0.062	0.108	0.191	0.279	0.421	0.466	0.436	0.314	0.205	0.116	0.069	0.227
8 p. m. temperature	11.0	13.1	28.5	51.1	62.0	70.7	77.4	75.2	63.8	48.8	29.6	17.4	45.7
Concordia, Kans. (1895–1914):													
8 a. m. vapor pressure	0.104	0.101	0.151	0.237	0.367	0.511	0.574	0.560	0.425	0.271	0.166	0.115	0.298
8 a. m. temperature	22.2	21.0	32.5	44.8	56.4	65.7	70.1	68.4	59.4	46.8	34.2	24.5	44.8
8 p. m. vapor pressure	0.125	0.131	0.183	0.252	0.394	0.529	0.583	0.590	0.456	0.306	0.198	0.138	0.324
8 p. m. temperature	30.2	31.5	46.0	60.0	69.3	79.3	84.2	83.2	72.8	58.6	44.3	32.2	67.6
Del Rio, Tex. (1906–1914):													
8 a. m. vapor pressure	0.248	0.237	0.336	0.411	0.533	0.652	0.677	0.666	0.596	0.445	0.333	0.236	0.448
8 a. m. temperature	43.8	44.7	53.6	59.1	67.2	73.5	74.7	74.8	69.3	59.2	50.7	42.9	59.5
8 p. m. vapor pressure													
8 p. m. temperature													
Devils Lake, N. Dak. (1905–1914):													
8 a. m. vapor pressure	0.042	0.045	0.085	0.146	0.230	0.372	0.428	0.389	0.289	0.177	0.106	0.062	0.198
8 a. m. temperature	−2.1	−0.5	15.0	31.6	43.1	56.6	59.5	56.0	47.4	34.7	21.7	8.5	30.9
8 p. m. vapor pressure	0.050	0.061	0.110	0.171	0.249	0.402	0.461	0.419	0.312	0.195	0.119	0.070	0.219
8 p. m. temperature	3.2	8.3	25.4	45.2	56.9	68.8	73.2	70.4	60.4	44.8	27.1	12.6	41.3
Dodge City, Kans. (1895–1914):													
8 a. m. vapor pressure	0.105	0.103	0.145	0.224	0.354	0.487	0.554	0.533	0.409	0.260	0.161	0.110	0.287
8 a. m. temperature	23.0	22.2	32.2	43.3	54.7	64.2	68.2	66.9	58.3	45.4	33.4	23.8	44.6
8 p. m. vapor pressure	0.122	0.124	0.162	0.232	0.361	0.491	0.531	0.518	0.408	0.271	0.182	0.124	0.294
8 p. m. temperature	33.6	35.4	48.8	60.8	69.7	79.1	83.4	83.2	73.9	59.2	45.5	33.8	58.9
Fort Worth, Tex. (1899–1914):													
8 a. m. vapor pressure	0.212	0.198	0.286	0.369	0.501	0.620	0.678	0.675	0.575	0.402	0.296	0.205	0.419
8 a. m. temperature	39.9	38.6	49.3	55.8	64.3	71.9	74.5	74.4	68.1	57.6	48.8	39.7	56.9
8 p. m. vapor pressure	0.228	0.220	0.257	0.357	0.488	0.544	0.580	0.606	0.537	0.409	0.312	0.218	0.400
8 p. m. temperature	53.1	51.3	61.5	69.7	75.1	87.4	91.0	89.4	83.2	71.6	60.8	47.9	70.2
Huron, S. Dak. (1895–1914):													
8 a. m. vapor pressure	0.063	0.062	0.107	0.181	0.292	0.425	0.483	0.455	0.325	0.202	0.115	0.077	0.232
8 a. m. temperature	8.5	7.6	21.8	36.5	49.3	59.2	62.9	60.1	50.3	38.3	24.5	13.9	36.1
8 p. m. vapor pressure	0.077	0.082	0.130	0.197	0.308	0.456	0.506	0.495	0.351	0.221	0.127	0.088	0.253
8 p. m. temperature	15.3	17.8	34.1	53.6	64.2	73.1	78.8	77.3	66.4	52.0	33.8	20.7	48.9
Lincoln, Nebr. (1897–1914):													
8 a. m. vapor pressure	0.096	0.093	0.144	0.216	0.349	0.490	0.557	0.543	0.413	0.267	0.160	0.104	0.286
8 a. m. temperature	19.7	18.8	30.4	43.3	55.0	64.4	68.8	66.8	58.1	45.9	33.2	23.0	44.0
8 p. m. vapor pressure	0.109	0.109	0.165	0.233	0.369	0.508	0.565	0.581	0.442	0.290	0.178	0.117	0.306
8 p. m. temperature	27.1	28.0	42.2	57.1	67.6	77.2	82.2	80.5	70.7	57.7	42.5	29.5	55.2
Moorhead, Minn. (1895–1914):													
8 a. m. vapor pressure	0.052	0.054	0.099	0.178	0.279	0.414	0.475	0.434	0.318	0.206	0.117	0.069	0.225
8 a. m. temperature	2.6	2.5	17.4	34.8	47.5	58.0	61.2	57.6	48.5	37.3	22.4	9.8	33.3
8 p. m. vapor pressure	0.066	0.075	0.132	0.210	0.303	0.456	0.538	0.492	0.366	0.240	0.137	0.084	0.258
8 p. m. temperature	8.7	11.5	27.8	48.6	60.8	70.6	75.2	72.4	61.8	48.0	28.6	15.1	44.1
North Platte, Nebr. (1895–1914):													
8 a. m. vapor pressure	0.083	0.084	0.121	0.189	0.298	0.426	0.487	0.469	0.335	0.200	0.124	0.091	0.242
8 a. m. temperature	17.2	16.7	26.4	38.2	49.7	59.7	63.5	61.5	52.0	38.6	27.1	19.3	38.8
8 p. m. vapor pressure	0.103	0.109	0.148	0.212	0.315	0.460	0.530	0.520	0.368	0.232	0.147	0.108	0.271
8 p. m. temperature	28.4	30.0	42.7	56.5	66.0	75.4	80.9	79.6	69.9	54.4	40.4	29.3	54.5
Oklahoma, Okla. (1895–1914):													
8 a. m. vapor pressure	0.154	0.146	0.221	0.306	0.453	0.585	0.646	0.622	0.509	0.338	0.232	0.155	0.364
8 a. m. temperature	31.4	30.2	41.6	51.1	61.0	69.4	72.5	71.4	64.5	52.6	42.4	32.2	51.7
8 p. m. vapor pressure	0.172	0.169	0.242	0.330	0.478	0.604	0.639	0.616	0.519	0.351	0.250	0.175	0.379
8 p. m. temperature	40.4	41.6	55.3	65.0	72.5	81.4	85.2	85.6	77.2	64.3	52.3	40.7	63.5
Omaha, Nebr. (1895–1914):													
8 a. m. vapor pressure	0.095	0.091	0.141	0.224	0.353	0.487	0.556	0.544	0.418	0.264	0.160	0.109	0.287
8 a. m. temperature	19.3	18.4	30.8	44.1	55.8	65.0	69.6	67.7	58.9	47.1	34.0	23.1	44.5
8 p. m. vapor pressure	0.109	0.109	0.165	0.248	0.378	0.511	0.578	0.583	0.452	0.283	0.176	0.120	0.309
8 p. m. temperature	26.6	27.3	41.7	56.8	67.7	77.1	81.7	80.2	70.9	58.4	42.9	29.5	55.1
Pierre, S. Dak. (1895–1914):													
8 a. m. vapor pressure	0.064	0.064	0.105	0.171	0.272	0.397	0.456	0.432	0.306	0.186	0.107	0.078	0.220
8 a. m. temperature	12.2	11.2	24.0	38.4	50.2	60.7	65.5	62.6	52.6	40.2	26.3	17.5	38.4
8 p. m. vapor pressure	0.084	0.088	0.126	0.180	0.270	0.401	0.436	0.439	0.321	0.209	0.125	0.098	0.231
8 p. m. temperature	20.8	22.2	37.2	56.2	66.4	76.1	82.8	80.8	69.8	54.6	37.2	25.1	52.4

TABLE 8.—*The mean vapor pressures (inches) and temperatures (°F.) at 8 a. m. and 8 p. m. (75th meridian time), at regular Weather Bureau stations for the intervals indicated in parentheses—usually for the 20 years 1895 to 1914, inclusive*—Continued.

Great Plains region—Continued.

Stations.		Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
Rapid City, S. Dak. (1895–1914):														
8 a. m.	vapor pressure	0 081	0.080	0.106	0.161	0.249	0.346	0.389	0.359	0.260	0.172	0.117	0.096	0.201
	temperature	19.9	17.3	25.4	37.8	48.4	58.1	63.2	61.0	52.0	41.6	30.6	24.2	40.0
8 p. m.	vapor pressure	0.093	0.096	0.124	0.177	0.249	0.359	0.386	0.369	0.275	0.188	0.128	0.101	0.212
	temperature	25.1	25.1	36.3	52.0	60.9	70.8	78.0	77.3	66.2	48.9	36.3	27.7	50.4
Sioux City, Iowa (8a=1895–1914; 8p=1909–1914):														
8 a. m.	vapor pressure	0.081	0.079	0.128	0.205	0.328	0.463	0.533	0.515	0.388	0.243	0.143	0.097	0.267
	temperature	15.0	14.1	27.4	41.0	53.2	62.8	66.8	64.6	55.6	43.7	30.3	19.8	41.5
8 p. m.	vapor pressure	0.090	0.097	0.140	0.216	0.350	0.480	0.514	0.540	0.431	0.255	0.163	0.108	0.281
	temperature	19.8	23.1	41.1	55.4	67.6	77.6	82.3	78.8	68.3	55.0	39.8	27.3	53.0
Valentine, Nebr. (1897–1914):														
8 a. m.	vapor pressure	0.079	0.078	0.116	0.172	0.275	0.397	0.459	0.444	0.306	0.192	0.117	0.087	0.227
	temperature	16.0	13.5	25.2	36.5	48.1	58.9	63.2	61.0	51.3	38.9	27.5	18.1	38.2
8 p. m.	vapor pressure	0.097	0.094	0.133	0.172	0.267	0.391	0.440	0.443	0.318	0.197	0.130	0.104	0.232
	temperature	25.4	24.8	38.8	53.8	63.6	73.9	80.0	78.1	68.3	54.1	39.2	26.3	52.2
Wichita, Kans. (1895–1914):														
8 a. m.	vapor pressure	0.125	0.120	0.178	0.264	0.406	0.537	0.611	0.588	0.471	0.304	0.198	0.130	0.328
	temperature	26.7	35.4	36.9	48.3	59.0	67.7	71.5	70.4	62.5	50.5	38.6	28.1	48.8
8 p. m.	vapor pressure	0.139	0.139	0.202	0.280	0.423	0.550	0.604	0.588	0.473	0.315	0.215	0.147	0.340
	temperature	35.4	36.2	50.4	61.8	70.2	79.9	84.1	84.0	74.9	62.2	49.3	36.8	60.4
Williston, N. Dak. (1895–1914):														
8 a. m.	vapor pressure	0.052	0.052	0.084	0.154	0.239	0.354	0.399	0.355	0.250	0.166	0.099	0.073	0.188
	temperature	4.0	2.8	15.3	33.6	45.2	55.3	59.0	55.0	45.1	34.4	20.7	12.2	31.9
8 p. m.	vapor pressure	0.069	0.071	0.109	0.175	0.247	0.368	0.388	0.369	0.273	0.189	0.117	0.086	0.204
	temperature	10.0	11.7	26.6	50.6	61.2	69.8	77.2	74.8	63.3	47.8	28.2	17.0	44.8
Yankton, S. Dak (1902–1914):														
8 a. m.	vapor pressure	0.074	0.074	0.129	0.198	0.318	0.455	0.525	0.506	0.382	0.235	0.140	0.088	0.260
	temperature	14.0	13.6	28.3	39.7	52.1	62.5	66.6	64.2	55.3	42.7	30.6	18.7	40.7
8 p. m.	vapor pressure													
	temperature													

Rocky Mountains and Plateau region.

Stations.		Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
Baker, Oreg. (1895–1909, 1911–1914):														
8 a. m.	vapor pressure	0.110	0.116	0.130	0.150	0.194	0.241	0.246	0.227	0.196	0.168	0.141	0.108	0.169
	temperature	24.0	25.9	30.4	35.6	41.3	47.4	53.5	51.8	44.7	38.1	32.2	24.3	37.4
8 p. m.	vapor pressure	0.125	0.136	0.146	0.156	0.208	0.261	0.275	0.265	0.213	0.197	0.157	0.123	0.188
	temperature	29.7	34.0	42.5	52.8	59.2	66.7	77.6	77.0	66.4	54.6	40.1	29.5	52.5
Boise, Idaho (1899–1914):														
8 a. m.	vapor pressure	0.132	0.135	0.160	0.180	0.226	0.274	0.279	0.250	0.219	0.190	0.163	0.129	0.195
	temperature	29.2	30.3	36.4	41.3	46.7	53.2	59.5	58.0	50.8	43.7	37.4	28.2	42.9
8 p. m.	vapor pressure	0.144	0.146	0.164	0.170	0.212	0.251	0.255	0.241	0.226	0.211	0.176	0.143	0.195
	temperature	35.0	39.3	49.6	58.6	66.2	74.6	80.0	84.1	72.6	59.4	46.2	34.1	58.8
Cheyenne, Wyo. (1895–1914):														
8 a. m.	vapor pressure	0.075	0.073	0.093	0.129	0.198	0.270	0.315	0.293	0.208	0.139	0.095	0.075	0.164
	temperature	24.1	20.9	26.4	33.2	42.3	52.0	56.3	55.0	46.5	37.2	30.9	24.7	37.5
8 p. m.	vapor pressure	0.081	0.085	0.105	0.140	0.207	0.275	0.311	0.296	0.213	0.153	0.105	0.081	0.171
	temperature	29.0	28.0	37.0	48.0	56.8	67.4	72.6	72.6	63.4	48.5	37.1	28.1	49.0
Denver, Colo. (1895–1914):														
8 a. m.	vapor pressure	0.081	0.082	0.106	0.145	0.212	0.284	0.338	0.330	0.241	0.155	0.102	0.078	0.180
	temperature	25.8	23.4	30.4	38.1	46.5	55.0	59.9	59.2	50.7	40.4	32.2	24.6	40.5
8 p. m.	vapor pressure	0.100	0.094	0.116	0.145	0.209	0.273	0.336	0.326	0.240	0.167	0.119	0.097	0.185
	temperature	36.3	36.0	44.8	55.3	63.7	73.8	77.7	78.1	70.3	57.0	45.4	34.7	56.1
Durango, Colo. (1905–1913):														
8 a. m.	vapor pressure	0.083	0.092	0.120	0.133	0.147	0.197	0.200	0.205	0.232	0.148	0.116	0.075	0.162
	temperature	17.3	20.5	28.2	33.2	38.0	45.0	52.0	51.4	43.8	34.1	26.4	15.8	33.8
8 p. m.	vapor pressure	0.115	0.115	0.127	0.127	0.132	0.188	0.208	0.222	0.237	0.160	0.141	0.104	0.173
	temperature	31.4	36.6	46.5	54.5	63.7	74.6	75.7	74.7	67.9	54.3	41.6	29.0	54.2
El Paso, Tex. (1895–1914):														
8 a. m.	vapor pressure	0.130	0.125	0.134	0.147	0.187	0.314	0.458	0.462	0.387	0.244	0.173	0.128	0.241
	temperature	35.5	38.0	44.6	50.5	58.9	67.4	69.8	69.0	63.3	51.5	41.8	34.3	52.0
8 p. m.	vapor pressure	0.126	0.111	0.102	0.108	0.131	0.231	0.376	0.390	0.335	0.225	0.172	0.128	0.203
	temperature	53.1	57.0	66.0	73.1	81.6	88.5	86.7	86.0	80.6	70.1	59.2	50.1	71.0
Flagstaff, Ariz. (1904–1911):														
8 a. m.	vapor pressure	0.100	0.112	0.126	0.126	0.132	0.153	0.265	0.334	0.237	0.143	0.108	0.089	0.162
	temperature	20.5	22.6	27.2	30.3	35.4	43.7	51.6	50.7	42.8	33.7	26.2	19.9	33.7
8 p. m.	vapor pressure	0.128	0.134	0.133	0.119	0.132	0.154	0.300	0.362	0.257	0.156	0.127	0.106	0.176
	temperature	34.0	37.7	44.0	52.0	60.3	71.3	72.5	70.2	65.4	53.0	41.7	32.0	52.8
Grand Junction, Colo. (1899–1914):														
8 a. m.	vapor pressure	0.086	0.107	0.135	0.147	0.189	0.223	0.301	0.310	0.233	0.169	0.124	0.083	0.177
	temperature	19.2	25.5	34.9	42.3	50.2	59.8	65.2	63.5	54.4	42.4	31.6	19.2	42.4
8 p. m.	vapor pressure	0.110	0.124	0.139	0.155	0.176	0.205	0.274	0.295	0.234	0.183	0.138	0.101	0.178
	temperature	30.6	38.3	51.2	60.9	69.9	81.1	86.0	83.8	73.9	58.8	45.9	30.7	59.3
Havre, Mont. (1895–1914):														
8 a. m.	vapor pressure	0.075	0.073	0.101	0.160	0.236	0.321	0.359	0.318	0.244	0.180	0.120	0.097	0.190
	temperature	10.9	9.5	18.8	33.9	44.0	52.6	56.5	53.0	44.4	36.0	25.0	19.4	33.7
8 p. m.	vapor pressure	0.087	0.093	0.133	0.188	0.258	0.346	0.375	0.353	0.291	0.224	0.141	0.107	0.216
	temperature	16.4	18.2	32.8	52.5	61.9	70.1	79.0	77.1	64.9	50.8	31.9	23.5	48.3
Helena, Mont. (1895–1914):														
8 a. m.	vapor pressure	0.084	0.086	0.100	0.139	0.197	0.252	0.276	0.250	0.209	0.161	0.114	0.094	0.164
	temperature	19.6	19.7	25.2	35.5	43.0	50.4	55.2	53.8	46.0	38.5	29.2	23.1	36.6
8 p. m.	vapor pressure	0.094	0.097	0.114	0.144	0.203	0.255	0.278	0.258	0.229	0.181	0.127	0.102	0.174
	temperature	24.5	26.8	35.8	50.3	57.5	66.2	75.2	74.4	61.9	49.4	35.2	27.2	48.7

TABLE 8.—*The mean vapor pressures (inches) and temperatures (°F.) at 8 a. m. and 8 p. m. (75th meridian time), at regular Weather Bureau stations for the intervals indicated in parentheses—usually for the 20 years 1895 to 1914, inclusive*—Continued.

Rocky Mountains and Plateau region—Continued.

Stations.		Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
Independence, Cal. (1898–1914):														
8 a. m.	vapor pressure	0.130	0.135	0.138	0.142	0.169	0.180	0.223	0.238	0.187	0.165	0.138	0.113	0.163
	temperature	33.3	36.0	40.1	45.7	51.3	59.9	66.0	64.2	59.7	48.2	39.5	31.9	47.8
8 p. m.	vapor pressure	0.138	0.131	0.127	0.126	0.144	0.173	0.214	0.214	0.184	0.166	0.142	0.121	0.157
	temperature	45.6	51.3	57.7	66.3	73.2	83.7	89.8	87.9	79.8	66.2	53.6	43.7	66.6
Kalispell, Mont. (1899–1914):														
8 a. m.	vapor pressure	0.099	0.094	0.122	0.150	0.211	0.273	0.288	0.235	0.223	0.183	0.145	0.111	0.180
	temperature	19.7	18.7	26.6	33.6	41.0	47.4	50.7	48.5	42.1	35.8	29.4	23.3	34.7
8 p. m.	vapor pressure	0.112	0.115	0.139	0.160	0.228	0.283	0.308	0.285	0.265	0.220	0.164	0.125	0.200
	temperature	25.1	27.6	39.7	51.9	59.2	66.1	75.2	73.0	60.9	48.8	35.3	27.3	49.2
Lander, Wyo. (1895–1914):														
8 a. m.	vapor pressure	0.062	0.064	0.090	0.134	0.194	0.249	0.285	0.264	0.197	0.138	0.093	0.061	0.153
	temperature	12.7	12.6	22.1	32.2	41.1	49.3	53.6	51.1	42.6	32.8	23.4	11.8	32.1
8 p. m.	vapor pressure	0.086	0.094	0.111	0.135	0.185	0.228	0.275	0.269	0.214	0.172	0.115	0.079	0.164
	temperature	24.4	27.6	39.0	52.2	60.2	70.6	77.7	76.8	65.8	49.3	35.5	21.5	50.0
Lewiston, Idaho (1901–1914):														
8 a. m.	vapor pressure	0.150	0.154	0.184	0.212	0.278	0.331	0.350	0.320	0.293	0.251	0.203	0.158	0.241
	temperature	31.0	32.0	37.5	42.4	48.8	55.0	60.6	58.7	51.3	43.6	38.1	32.6	44.3
8 p. m.	vapor pressure													
	temperature													
Miles City, Mont. (1895–1914):														
8 a. m.	vapor pressure	0.073	0.072	0.107	0.180	0.267	0.373	0.415	0.376	0.278	0.190	0.120	0.090	0.212
	temperature	11.7	10.6	21.6	37.1	47.9	57.7	62.8	59.3	48.6	37.1	25.1	20.3	36.6
8 p. m.	vapor pressure	0.098	0.103	0.153	0.250	0.342	0.434	0.478	0.479	0.386	0.266	0.167	0.115	0.273
	temperature	20.4	21.8	35.8	55.4	64.2	73.6	82.2	80.6	68.1	53.2	35.9	25.4	51.4
Modena, Utah (1901–1914):														
8 a. m.	vapor pressure	0.099	0.106	0.123	0.129	0.144	0.160	0.242	0.276	0.184	0.137	0.107	0.084	0.149
	temperature	21.7	23.5	29.3	33.5	40.3	48.7	56.0	55.6	45.7	35.2	26.6	18.8	36.2
8 p. m.	vapor pressure	0.123	0.130	0.139	0.132	0.140	0.142	0.225	0.260	0.179	0.150	0.129	0.109	0.155
	temperature	34.3	38.5	47.3	56.6	64.8	76.6	81.4	79.8	71.5	58.3	43.8	31.3	57.0
Phoenix, Ariz. (Aug., 1895–Dec., 1914):														
8 a. m.	vapor pressure	0.191	0.199	0.210	0.202	0.207	0.254	0.489	0.548	0.400	0.267	0.223	0.177	0.281
	temperature	42.6	45.0	49.2	54.5	60.5	70.2	77.8	77.4	70.7	58.8	49.3	41.6	58.1
8 p. m.	vapor pressure	0.208	0.202	0.207	0.185	0.189	0.237	0.413	0.467	0.366	0.278	0.244	0.194	0.266
	temperature	60.6	64.8	70.7	78.9	86.9	97.9	99.9	98.0	93.0	80.0	67.9	58.9	79.8
Pocatello, Idaho (1899–1914):														
8 a. m.	vapor pressure	0.108	0.109	0.139	0.157	0.201	0.242	0.267	0.252	0.198	0.180	0.136	0.103	0.174
	temperature	24.2	24.3	31.9	39.9	44.3	51.8	57.6	56.5	48.5	39.9	33.1	23.5	39.5
8 p. m.	vapor pressure	0.126	0.130	0.153	0.161	0.201	0.242	0.261	0.238	0.199	0.185	0.152	0.120	0.181
	temperature	30.2	33.1	43.2	54.0	62.3	71.8	81.7	80.6	69.6	54.6	42.0	29.9	54.4
Pueblo, Colo. (1895–1914):														
8 a. m.	vapor pressure	0.078	0.077	0.104	0.146	0.215	0.295	0.371	0.360	0.252	0.158	0.102	0.075	0.186
	temperature	23.5	22.1	30.5	38.4	48.0	56.8	61.4	60.2	51.1	39.8	28.9	21.9	40.3
8 p. m.	vapor pressure	0.102	0.093	0.109	0.141	0.205	0.265	0.346	0.354	0.255	0.176	0.126	0.097	0.189
	temperature	37.5	38.2	50.0	64.3	67.9	77.9	80.4	80.3	73.3	59.3	46.7	35.2	59.2
Reno, Nev. (1906–1914):														
8 a. m.	vapor pressure	0.126	0.127	0.135	0.150	0.187	0.217	0.264	0.237	0.207	0.171	0.140	0.119	0.173
	temperature	27.1	29.4	32.0	37.2	41.9	47.5	54.3	52.8	46.2	39.1	32.4	25.4	38.8
8 p. m.	vapor pressure	0.144	0.141	0.134	0.143	0.179	0.204	0.258	0.227	0.198	0.176	0.154	0.139	0.175
	temperature	37.8	44.9	50.5	57.8	63.2	71.6	81.6	81.9	72.2	61.3	48.9	37.1	59.1
Roswell, N. Mex. (1905–1914):														
8 a. m.	vapor pressure	0.127	0.124	0.160	0.200	0.265	0.404	0.490	0.495	0.390	0.241	0.175	0.124	0.266
	temperature	29.6	29.7	38.2	43.9	52.0	61.0	64.7	63.9	56.4	44.3	35.7	27.9	45.6
8 p. m.	vapor pressure	0.150	0.136	0.162	0.192	0.251	0.400	0.480	0.492	0.414	0.276	0.205	0.150	0.276
	temperature	50.3	52.4	64.5	70.3	78.8	85.5	85.8	84.3	77.7	64.6	53.6	43.7	66.0
Salt Lake City, Utah (1895–1914):														
8 a. m.	vapor pressure	0.116	0.122	0.139	0.160	0.204	0.240	0.283	0.287	0.218	0.181	0.145	0.111	0.184
	temperature	28.2	30.0	36.4	43.3	49.8	58.4	65.6	65.4	55.9	45.9	37.4	27.6	45.3
8 p. m.	vapor pressure	0.134	0.137	0.150	0.158	0.196	0.229	0.275	0.280	0.227	0.203	0.169	0.129	0.191
	temperature	33.4	36.8	46.4	56.5	64.2	75.5	83.9	82.7	71.6	57.1	44.3	32.7	57.1
Santa Fe, N. Mex. (1895–1914):														
8 a. m.	vapor pressure	0.084	0.088	0.101	0.117	0.159	0.224	0.316	0.315	0.238	0.156	0.106	0.078	0.165
	temperature	24.2	25.5	31.4	38.0	47.4	57.2	59.9	58.3	51.1	40.5	31.8	23.4	40.7
8 p. m.	vapor pressure	0.099	0.103	0.101	0.111	0.139	0.191	0.298	0.298	0.232	0.165	0.120	0.092	0.162
	temperature	32.2	36.6	46.2	54.3	62.8	72.1	72.6	72.2	66.4	52.9	40.5	30.0	53.2
Sheridan, Wyo. (1908–1914):														
8 a. m.	vapor pressure	0.070	0.073	0.106	0.153	0.223	0.321	0.344	0.301	0.236	0.157	0.111	0.075	0.181
	temperature	14.5	13.7	23.4	33.7	42.3	52.8	56.6	51.6	44.9	33.7	24.7	15.0	33.9
8 p. m.	vapor pressure	0.085	0.094	0.125	0.163	0.239	0.334	0.343	0.310	0.258	0.179	0.131	0.091	0.196
	temperature	22.5	24.7	39.2	52.5	59.2	70.9	77.8	76.4	64.2	49.4	36.0	23.6	49.7
Spokane, Wash. (1895–1914):														
8 a. m.	vapor pressure	0.131	0.136	0.152	0.180	0.234	0.279	0.306	0.282	0.251	0.214	0.178	0.145	0.207
	temperature	26.6	28.1	33.1	39.1	46.0	51.9	57.0	55.4	48.2	40.7	34.8	29.4	40.9
8 p. m.	vapor pressure	0.149	0.150	0.156	0.166	0.215	0.241	0.253	0.237	0.238	0.225	0.194	0.158	0.198
	temperature	31.7	36.4	45.7	56.8	64.0	71.4	80.9	79.5	68.3	56.6	41.3	33.4	55.0
Tonopah, Nev. (1907–1914):														
8 a. m.	vapor pressure	0.117	0.113	0.123	0.120	0.138	0.164	0.217	0.200	0.167	0.148	0.114	0.095	0.143
	temperature	27.9	29.0	33.8	39.3	44.8	53.3	61.9	61.7	53.9	44.3	37.1	26.2	42.7
8 p. m.	vapor pressure	0.126	0.123	0.123	0.114	0.136	0.166	0.207	0.195	0.161	0.151	0.118	0.101	0.143
	temperature	34.2	38.4	47.3	55.8	62.8	72.5	81.1	81.0	70.4	57.2	45.6	32.9	56.6
Walla Walla, Wash. (1895–1914):														
8 a. m.	vapor pressure	0.160	0.170	0.199	0.219	0.262	0.310	0.313	0.299	0.294	0.264	0.209	0.169	0.239
	temperature	32.8	34.5	39.8	45.2	50.2	56.0	62.9	62.2	55.0	47.9	40.9	33.8	46.8
8 p. m.	vapor pressure	0.174	0.196	0.234	0.250	0.296	0.331	0.315	0.320	0.348	0.304	0.231	0.181	0.265
	temperature	35.8	41.0	51.3	61.0	68.1	75.6	86.4	84.3	72.6	60.2	45.8	36.2	59.9

TABLE 8.—*The mean vapor pressures (inches) and temperatures (°F.) at 8 a. m. and 8 p. m. (75th meridian time), at regular Weather Bureau stations for the intervals indicated in parentheses—usually for the 20 years 1895 to 1914, inclusive*—Continued.

Rocky Mountains and Plateau region—Continued.

Stations.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
Winnemucca, Nev. (1895–1914):													
8 a. m. vapor pressure	0.113	0.120	0.133	0.147	0.181	0.209	0.222	0.205	0.167	0.147	0.124	0.101	0.156
8 a. m. temperature	23.5	26.3	30.4	35.6	41.5	49.2	55.7	53.9	44.5	36.0	29.2	22.1	37.4
8 p. m. vapor pressure	0.141	0.146	0.142	0.142	0.168	0.193	0.229	0.223	0.190	0.174	0.151	0.132	0.169
8 p. m. temperature	35.8	41.1	48.0	57.2	64.3	74.8	84.1	82.5	71.6	58.9	45.2	34.3	58.1
Yellowstone Park, Wyo. (1904–1914):													
8 a. m. vapor pressure	0.079	0.074	0.100	0.118	0.162	0.225	0.270	0.227	0.184	0.137	0.102	0.074	0.146
8 a. m. temperature	16.7	15.0	21.4	28.4	35.5	43.2	47.5	46.1	40.0	32.2	25.9	16.7	30.7
8 p. m. vapor pressure	0.082	0.086	0.109	0.132	0.170	0.234	0.286	0.234	0.195	0.148	0.112	0.083	0.156
8 p. m. temperature	21.3	23.2	31.4	43.2	50.6	59.8	68.7	68.2	57.3	42.9	32.0	21.8	43.4
Yuma, Ariz. (1896–1896, 1901–1914):													
8 a. m. vapor pressure	0.177	0.207	0.226	0.244	0.300	0.395	0.587	0.649	0.480	0.309	0.233	0.176	0.332
8 a. m. temperature	46.2	48.7	51.8	55.8	60.8	68.7	77.4	77.7	70.0	60.0	52.1	45.5	59.6
8 p. m. vapor pressure	0.191	0.206	0.211	0.214	0.255	0.332	0.531	0.576	0.446	0.305	0.251	0.183	0.308
8 p. m. temperature	64.4	69.4	74.8	82.7	89.3	98.5	101.2	100.0	95.4	82.6	70.4	61.3	82.5
Pacific coast.													
Eureka, Cal. (1895–1914):													
8 a. m. vapor pressure	0.262	0.267	0.263	0.276	0.305	0.334	0.362	0.369	0.354	0.328	0.311	0.262	0.307
8 a. m. temperature	44.8	44.9	44.8	46.1	48.7	50.7	52.5	52.8	51.8	50.0	48.1	45.0	48.4
8 p. m. vapor pressure	0.293	0.297	0.289	0.294	0.326	0.356	0.364	0.393	0.390	0.365	0.340	0.300	0.336
8 p. m. temperature	50.5	51.1	51.0	52.8	54.3	56.3	57.3	57.7	57.7	56.2	54.1	51.2	54.2
Fresno, Cal. (1895–1914):													
8 a. m. vapor pressure	0.246	0.257	0.276	0.273	0.288	0.289	0.306	0.320	0.313	0.292	0.257	0.225	0.278
8 a. m. temperature	41.5	43.8	46.4	51.0	53.1	59.8	65.5	64.3	59.2	52.8	45.4	39.8	51.9
8 p. m. vapor pressure	0.272	0.277	0.281	0.260	0.250	0.240	0.245	0.253	0.262	0.280	0.282	0.252	0.263
8 p. m. temperature	52.4	59.1	63.3	71.5	79.2	90.2	98.0	95.9	87.2	75.4	62.0	51.5	73.8
Los Angeles, Cal. (1895–1914):													
8 a. m. vapor pressure	0.238	0.259	0.286	0.315	0.363	0.415	0.470	0.477	0.422	0.348	0.263	0.208	0.339
8 a. m. temperature	49.4	49.6	50.6	51.9	54.0	57.4	60.7	61.6	60.3	57.7	54.5	50.5	55.0
8 p. m. vapor pressure	0.300	0.309	0.316	0.340	0.378	0.433	0.488	0.492	0.457	0.409	0.342	0.287	0.379
8 p. m. temperature	58.6	59.9	60.7	62.7	64.0	68.7	72.5	72.7	71.3	67.2	63.4	59.6	65.1
North Head, Wash. (1903–1914):													
8 a. m. vapor pressure	0.241	0.243	0.251	0.276	0.312	0.347	0.389	0.398	0.380	0.344	0.303	0.260	0.312
8 a. m. temperature	41.0	42.0	43.2	45.9	48.9	51.9	54.8	55.0	53.9	51.7	47.7	43.6	48.3
8 p. m. vapor pressure	0.248	0.254	0.263	0.284	0.321	0.360	0.403	0.407	0.391	0.352	0.308	0.263	0.323
8 p. m. temperature	43.0	45.2	46.6	49.1	51.7	55.0	57.8	58.0	56.8	54.5	49.3	45.1	51.0
Portland, Oreg. (1895–1914):													
8 a. m. vapor pressure	0.206	0.210	0.221	0.248	0.292	0.338	0.389	0.396	0.356	0.312	0.259	0.214	0.287
8 a. m. temperature	38.1	39.7	41.4	44.5	49.1	53.3	57.3	57.3	53.5	49.1	44.0	39.5	47.2
8 p. m. vapor pressure	0.218	0.220	0.230	0.243	0.298	0.349	0.416	0.412	0.373	0.334	0.275	0.226	0.300
8 p. m. temperature	41.8	45.8	51.7	58.4	63.3	68.8	76.3	75.5	68.6	59.9	48.8	42.7	58.5
Red Bluff, Cal. (1895–1914):													
8 a. m. vapor pressure	0.236	0.240	0.247	0.264	0.294	0.316	0.333	0.330	0.298	0.272	0.256	0.216	0.275
8 a. m. temperature	41.1	43.7	45.9	49.8	55.1	62.5	67.9	66.3	61.2	54.7	46.4	40.6	52.9
8 p. m. vapor pressure	0.255	0.258	0.255	0.259	0.281	0.289	0.293	0.294	0.282	0.275	0.278	0.238	0.271
8 p. m. temperature	50.5	56.5	60.5	68.4	75.7	86.2	95.1	93.1	79.3	73.9	59.7	50.5	71.2
Roseburg, Oreg. (1895–1914):													
8 a. m. vapor pressure	0.217	0.222	0.224	0.239	0.270	0.321	0.358	0.355	0.322	0.295	0.260	0.222	0.276
8 a. m. temperature	38.9	38.9	39.6	41.6	45.6	49.7	53.5	53.2	48.4	45.7	42.7	38.7	44.7
8 p. m. vapor pressure	0.239	0.247	0.241	0.252	0.296	0.336	0.372	0.360	0.341	0.335	0.285	0.243	0.296
8 p. m. temperature	44.8	49.4	53.8	60.0	65.0	71.2	80.5	79.7	72.0	62.0	50.3	44.8	61.1
Sacramento, Cal. (1895–1914):													
8 a. m. vapor pressure	0.253	0.275	0.283	0.292	0.320	0.352	0.377	0.372	0.343	0.305	0.275	0.234	0.306
8 a. m. temperature	42.7	45.7	47.8	49.8	52.2	56.5	58.3	57.8	57.1	53.5	47.0	41.1	50.8
8 p. m. vapor pressure	0.277	0.294	0.295	0.306	0.344	0.385	0.423	0.415	0.366	0.333	0.309	0.266	0.334
8 p. m. temperature	50.5	56.7	60.2	66.5	72.1	80.0	86.1	83.9	80.5	72.7	60.4	50.4	68.4
San Diego, Cal. (1895–1914):													
8 a. m. vapor pressure	0.262	0.290	0.311	0.336	0.378	0.434	0.504	0.526	0.480	0.395	0.305	0.238	0.372
8 a. m. temperature	50.0	50.6	51.9	53.8	56.5	59.4	63.2	64.4	62.7	59.0	54.9	50.5	56.4
8 p. m. vapor pressure	0.330	0.338	0.352	0.364	0.402	0.453	0.517	0.535	0.511	0.453	0.360	0.322	0.414
8 p. m. temperature	58.2	59.0	60.2	62.0	62.2	64.9	68.4	69.8	69.3	66.3	63.0	59.3	63.6
San Francisco, Cal. (1895–1914):													
8 a. m. vapor pressure	0.284	0.295	0.296	0.304	0.322	0.346	0.369	0.384	0.360	0.367	0.329	0.276	0.330
8 a. m. temperature	47.1	48.7	49.3	50.7	51.1	52.3	53.0	54.0	55.9	55.2	52.2	47.6	51.4
8 p. m. vapor pressure	0.293	0.306	0.298	0.308	0.333	0.356	0.382	0.395	0.387	0.360	0.332	0.288	0.336
8 p. m. temperature	52.4	55.3	55.8	57.4	58.1	59.6	59.3	59.8	62.2	62.1	58.0	53.1	57.8
San Jose, Cal. (8ᵖᵐ=1906–1914):													
8 a. m. vapor pressure													
8 a. m. temperature													
8 p. m. vapor pressure	0.312	0.303	0.320	0.343	0.359	0.388	0.454	0.447	0.406	0.348	0.318	0.280	0.351
8 p. m. temperature	54.6	58.1	60.6	65.0	67.6	70.8	75.7	74.9	73.9	69.1	61.1	53.8	65.4
San Luis Obispo, Cal. (1895–1914):													
8 a. m. vapor pressure	0.248	0.258	0.273	0.279	0.301	0.323	0.355	0.369	0.346	0.313	0.265	0.223	0.296
8 a. m. temperature	46.1	47.2	47.8	48.7	50.0	52.2	53.6	54.2	54.3	52.9	49.5	45.6	50.2
8 p. m. vapor pressure	0.289	0.305	0.314	0.324	0.347	0.368	0.400	0.410	0.388	0.354	0.311	0.265	0.340
8 p. m. temperature	57.4	58.7	58.9	60.3	61.0	66.0	70.1	69.7	68.5	66.2	62.2	58.4	63.1
Seattle, Wash. (1895–1914):													
8 a. m. vapor pressure	0.213	0.213	0.218	0.247	0.290	0.335	0.381	0.391	0.356	0.313	0.261	0.227	0.287
8 a. m. temperature	38.6	39.4	40.4	43.6	48.2	52.2	55.8	55.8	52.8	48.5	44.2	40.6	46.6
8 p. m. vapor pressure	0.224	0.227	0.228	0.247	0.298	0.341	0.397	0.401	0.367	0.330	0.274	0.238	0.298
8 p. m. temperature	38.5	45.1	48.9	54.8	60.6	65.3	71.2	70.2	63.5	55.8	47.8	43.6	55.7
Tatoosh Island and Neah Bay, Wash. (1895–1914):													
8 a. m. vapor pressure	0.226	0.228	0.229	0.252	0.290	0.331	0.370	0.377	0.348	0.318	0.276	0.249	0.291
8 a. m. temperature	40.9	41.7	41.9	44.4	47.7	50.5	52.6	52.6	51.7	49.7	46.1	43.8	47.0
8 p. m. vapor pressure	0.228	0.235	0.238	0.267	0.311	0.352	0.398	0.403	0.369	0.328	0.280	0.250	0.305
8 p. m. temperature	41.5	43.6	44.8	48.2	51.6	54.3	56.9	56.4	54.7	51.7	46.7	44.2	49.6

TABLE 9.—*The mean of the 8 a. m. and 8 p. m. (75th meridian time) vapor pressures given in Table 8.*

[Mean=(8^a+8^p)÷2. To compute the hourly vapor pressures see the ratios in Table 4.]

Atlantic Coast and Appalachian Mountains region.

Stations.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
Albany, N. Y.	0.108	0.096	0.148	0.216	0.336	0.462	0.548	0.519	0.428	0.294	0.186	0.126	0.289
Asheville, N. C.	.180	.170	.240	.288	.400	.532	.594	.592	.492	.320	.216	.174	.350
Atlanta, Ga.	.214	.193	.287	.336	.458	.590	.676	.678	.560	.377	.270	.215	.404
Atlantic City, N. J.	.158	.137	.198	.256	.380	.521	.648	.646	.540	.380	.236	.172	.356
Augusta, Ga.	.238	.225	.322	.367	.506	.654	.730	.741	.633	.434	.306	.243	.450
Baltimore, Md.	0.144	0.128	0.195	0.256	0.394	0.533	0.623	0.612	0.518	0.338	0.218	0.154	0.343
Block Island, R. I.	.146	.126	.176	.228	.334	.459	.590	.582	.490	.347	.236	.166	.324
Boston, Mass.	.123	.106	.160	.217	.274	.442	.548	.527	.441	.306	.205	.140	.290
Charleston, S. C.	.276	.269	.370	.427	.592	.734	.797	.806	.720	.512	.362	.284	.512
Charlotte, N. C.	.191	.174	.260	.304	.440	.588	.667	.670	.552	.364	.248	.194	.388
Columbia, S. C.	.223	.210	.300	.350	.476	.624	.704	.716	.604	.402	.288	.224	.425
Eastport, Me.	0.100	0.092	0.134	0.182	0.258	0.338	0.422	0.414	0.354	0.239	0.184	0.120	0.239
Elkins, W. Va.	.149	.129	.193	.236	.360	.494	.558	.539	.444	.284	.181	.144	.310
Harrisburg, Pa.	.124	.112	.172	.230	.364	.492	.572	.550	.467	.302	.196	.136	.310
Hatteras, N. C.	.272	.250	.338	.399	.557	.710	.802	.800	.698	.522	.374	.286	.500
Jacksonville, Fla.	.339	.338	.434	.482	.625	.751	.804	.815	.759	.584	.440	.350	.560
Key West, Fla.	.559	.563	.614	.633	.729	.806	.822	.830	.832	.766	.653	.590	.700
Lynchburg, Va.	.150	.136	.211	.268	.422	.567	.644	.630	.513	.330	.210	.154	.353
Nantucket, Mass.	0.154	0.134	0.182	0.236	0.333	0.447	0.578	0.571	0.480	0.354	0.250	0.176	0.324
New Haven, Conn.	.120	.105	.158	.220	.332	.454	.572	.555	.463	.312	.199	.135	.302
New York, N. Y.	.134	.118	.174	.234	.353	.478	.587	.576	.484	.330	.216	.149	.320
Norfolk, Va.	.202	.184	.264	.327	.472	.622	.726	.722	.604	.424	.282	.211	.420
Northfield, Vt.	.081	.072	.118	.184	.300	.413	.504	.461	.370	.243	.152	.096	.248
Philadelphia, Pa.	0.143	0.130	0.190	0.252	0.376	0.500	0.605	0.588	0.496	0.334	0.223	0.157	0.332
Portland, Me.	.094	.088	.134	.188	.280	.386	.494	.474	.388	.268	.170	.112	.256
Raleigh, N. C.	.190	.174	.260	.309	.458	.604	.690	.686	.569	.378	.250	.196	.397
Savannah, Ga.	.280	.273	.377	.432	.589	.726	.789	.799	.720	.507	.363	.286	.512
Scranton, Pa.	.122	.106	.168	.222	.340	.464	.553	.512	.438	.300	.186	.131	.295
Thomasville, Ga.	.318	.295	.387	.454	.554	.699	.784	.790	.715	.496	.352	.312	.512
Washington, D. C.	0.143	0.129	0.199	0.260	0.414	0.557	0.649	0.636	0.530	0.345	0.215	0.150	0.352
Wilmington, N. C.	.243	.230	.327	.382	.542	.689	.771	.776	.662	.462	.321	.250	.472
Wytheville, Va.	.164	.150	.222	.272	.390	.522	.589	.576	.478	.304	.190	.158	.334

Gulf States.

Birmingham, Ala.	0.243	0.222	0.306	0.360	0.482	0.620	0.699	0.700	0.610	0.401	0.272	0.233	0.428
Corpus Christi, Tex.	.385	.380	.510	.600	.732	.829	.862	.870	.796	.626	.512	.370	.623
Galveston, Tex.	.371	.362	.482	.568	.691	.795	.836	.850	.772	.604	.490	.368	.599
Meridian, Miss.	.270	.244	.342	.406	.519	.659	.732	.738	.640	.426	.314	.258	.462
Mobile, Ala.	.307	.300	.425	.478	.607	.742	.794	.804	.714	.504	.382	.308	.530
Montgomery, Ala.	.264	.254	.358	.400	.524	.658	.733	.750	.633	.432	.315	.258	.464
New Orleans, La.	.342	.331	.451	.504	.629	.747	.802	.816	.744	.541	.424	.334	.566
Palestine, Tex.	0.265	0.258	0.364	0.434	0.580	0.695	0.742	0.732	0.632	0.449	0.348	0.252	0.480
Pensacola, Fla.	.328	.321	.438	.493	.621	.755	.804	.811	.722	.514	.398	.322	.544
San Antonio, Tex.	.278	.270	.396	.449	.586	.668	.698	.688	.628	.465	.375	.266	.478
Shreveport, La.	.254	.242	.344	.415	.560	.684	.743	.744	.632	.437	.325	.242	.468
Tampa, Fla.	.405	.405	.496	.525	.644	.759	.808	.820	.776	.622	.490	.415	.597
Vicksburg, Miss.	.263	.246	.350	.413	.548	.693	.762	.779	.656	.445	.326	.251	.478

Ohio Valley and Great Lakes region.

Alpena, Mich.	0.096	0.082	0.118	0.184	0.280	0.396	0.478	0.469	0.392	0.264	0.172	0.116	0.254
Buffalo, N. Y.	.118	.100	.146	.205	.322	.448	.544	.512	.432	.294	.196	.134	.288
Chattanooga, Tenn.	.194	.178	.267	313	.447	.588	.657	.664	.553	.368	.252	.198	.390
Chicago, Ill.	.122	.110	.167	.230	.342	.467	.562	.562	.457	.306	.198	.134	.304
Cincinnati, Ohio.	.154	.134	.206	.260	.392	.517	.588	.574	.472	.314	.212	.158	.332
Cleveland, Ohio	.125	.108	.166	.228	.352	.471	.550	.526	.440	.297	.199	.134	.300
Columbus, Ohio.	.142	.150	.190	.252	.376	.502	.574	.545	.450	.299	.204	.148	.319
Detroit, Mich.	0.118	0.102	0.151	0.218	0.338	0.464	0.532	0.516	0.430	0.290	0.192	0.132	0.290
Duluth, Minn.	.066	.064	.100	.156	.236	.356	.442	.432	.339	.226	.136	.083	.220
Erie, Pa.	.124	.107	.160	.218	.340	.470	.545	.520	.434	.292	.198	.138	.296
Escanaba, Mich.	.083	.072	.112	.167	.260	.392	.481	.472	.380	.260	.160	.101	.345
Grand Haven, Mich.	0.122	0.106	0.146	0.214	0.317	0.430	0.521	0.522	0.426	0.290	0.194	0.140	0.286
Grand Rapids, Mich.	.118	.100	.151	.210	.326	.450	.506	.496	.421	.282	.189	.134	.282
Green Bay, Wis.	.082	.077	.122	.194	.307	.440	.510	.489	.398	.260	.158	.099	.261
Indianapolis, Ind.	.138	.124	.191	.264	.386	.505	.573	.556	.456	.298	.199	.142	.320
Knoxville, Tenn.	.188	.174	.254	.297	.438	.586	.656	.660	.546	.357	.238	.188	.382
Louisville, Ky.	.164	.146	.222	.278	.417	.554	.616	.604	.498	.326	.222	.166	.352
Marquette, Mich.	0.084	0.075	0.108	0.166	0.250	0.357	0.442	0.442	0.364	0.244	0.154	0.101	0.232
Milwaukee, Wis.	.103	.096	.145	.208	.304	.428	.524	.524	.430	.292	.182	.118	.280
Nashville, Tenn.	.192	.176	.260	.314	.449	.589	.664	.664	.540	.354	.244	.190	.386
Oswego, N. Y.	.113	.100	.144	.204	.308	.423	.526	.500	.414	.280	.186	.132	.278
Parkersburg, W. Va.	0.160	0.142	0.210	0.270	0.407	0.548	0.621	0.592	0.490	0.316	0.212	0.162	0.344
Pittsburgh, Pa.	.144	.126	.190	.246	.368	.497	.564	.534	.451	.300	.204	.150	.314
Port Huron, Mich.	.110	.094	.142	.207	.318	.440	.526	.504	.425	.283	.186	.126	.280
Rochester, N. Y.	.110	.096	.142	.202	.314	.427	.508	.479	.407	.278	.184	.127	.273
Sandusky, Ohio.	.130	.108	.162	.236	.358	.493	.572	.547	.441	.305	.200	.139	.307
Sault Ste. Marie, Mich.	.080	.069	.100	.164	.232	.366	.440	.436	.362	.247	.158	.101	.230
Toledo, Ohio.	.124	.106	.160	.226	.352	.474	.550	.530	.436	.290	.192	.130	.298

TABLE 9.—*The mean of the 8 a. m. and 8 p. m. (75th meridian time) vapor pressures given in Table 8*—Continued.

Mississippi Valley.

Stations.	Jan.	Feb.	Mar.	Apr.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	Annual.
Cairo, Ill	0.178	0.162	0.248	0.330	0.484	0.626	0.708	0.706	0.556	0.372	0.242	0.178	0.390
Charles City, Iowa	.082	.089	.148	.223	.340	.495	.556	.556	.434	.263	.165	.113	.288
Davenport, Iowa	.110	.102	.161	.238	.372	.507	.570	.565	.458	.290	.184	.123	.306
Des Moines, Iowa	.101	.099	.154	.236	.366	.502	.566	.559	.445	.279	.174	.114	.300
Dubuque, Iowa	.098	.093	.151	.222	.344	.476	.544	.533	.426	.278	.170	.112	.287
Fort Smith, Ark	0.184	0.176	0.258	0.342	0.501	0.636	0.704	0.688	0.570	0.374	0.260	0.182	0.406
Kansas City, Mo	.130	.127	.193	.268	.407	.541	.612	.599	.484	.306	.204	.139	.334
Keokuk, Iowa	.119	.112	.178	.266	.404	.546	.599	.594	.473	.307	.195	.131	.327
Little Rock, Ark	.209	.189	.286	.358	.508	.626	.720	.713	.594	.404	.275	.202	.425
Madison, Wis	.090	.086	.139	.204	.320	.468	.524	.516	.424	.262	.168	.110	.276
Memphis, Tenn	.212	.192	.293	.363	.504	.649	.732	.732	.599	.395	.272	.206	.430
Peoria, Ill	0.127	0.114	0.174	0.246	0.377	0.517	0.583	0.577	0.470	0.294	0.192	0.137	0.318
St. Louis, Mo	.149	.136	.214	.292	.436	.558	.632	.622	.517	.335	.224	.156	.356
St. Paul, Minn	.073	.075	.122	.194	.300	.435	.502	.476	.376	.240	.142	.090	.252
Springfield, Ill	.128	.119	.189	.260	.401	.526	.590	.582	.472	.299	.199	.138	.326
Springfield, Mo	.156	.144	.216	.292	.426	.568	.632	.618	.504	.326	.230	.158	.355

Plains region.

Abilene, Tex	0.184	0.173	0.236	0.320	0.450	0.540	0.576	0.565	0.504	0.366	0.271	0.189	0.364
Amarillo, Tex	.126	.121	.147	.208	.315	.434	.496	.480	.398	.268	.180	.127	.275
Bismarck, N. Dak	.051	.056	.096	.173	.264	.400	.446	.414	.295	.190	.108	.068	.214
Concordia, Kans	.114	.116	.167	.244	.380	.520	.578	.575	.440	.288	.182	.126	.311
Devils Lake, N. Dak	.046	.053	.098	.158	.240	.387	.444	.404	.300	.186	.112	.066	.208
Dodge City, Kans	.114	.114	.154	.228	.358	.489	.542	.526	.408	.266	.172	.117	.290
Fort Worth, Tex	0.220	0.209	0.272	0.363	0.494	0.582	0.629	0.640	0.556	0.406	0.304	0.212	0.410
Huron, S. Dak	.070	.072	.118	.189	.300	.440	.494	.475	.338	.212	.121	.082	.242
Lincoln, Nebr	.102	.101	.154	.224	.359	.499	.561	.562	.428	.278	.169	.110	.296
Moorhead, Minn	.059	.064	.116	.194	.291	.435	.506	.463	.342	.223	.127	.076	.242
North Platte, Nebr	.093	.096	.134	.200	.306	.443	.508	.494	.352	.216	.136	.100	.256
Oklahoma, Okla	.163	.158	.232	.318	.466	.594	.642	.619	.514	.344	.241	.165	.372
Omaha, Nebr	.102	.100	.153	.236	.366	.499	.567	.564	.435	.274	.168	.114	.299
Pierre, S. Dak	0.074	0.076	0.116	0.176	0.271	0.399	0.446	0.436	0.314	0.198	0.116	0.088	0.226
Rapid City, S. Dak	.087	.088	.115	.169	.249	.352	.388	.364	.268	.180	.122	.098	.206
Sioux City, Iowa	.086	.088	.134	.210	.339	.472	.524	.528	.410	.249	.153	.102	.274
Valentine, Nebr	.088	.086	.124	.172	.271	.394	.450	.444	.312	.194	.124	.096	.230
Wichita, Kans	.132	.130	.190	.272	.414	.544	.608	.588	.472	.310	.206	.138	.334
Williston, N. Dak	.060	.062	.096	.164	.243	.361	.394	.362	.262	.178	.108	.080	.196

Rocky Mountains and Plateau region.

Boise, Idaho	0.138	0.140	0.162	0.175	0.218	0.262	0.267	0.246	0.222	0.205	0.170	0.136	0.195
Cheyenne, Wyo	.078	.079	.099	.134	.202	.272	.313	.294	.210	.146	.100	.078	.168
Denver, Colo	.090	.088	.111	.145	.210	.278	.337	.328	.240	.161	.110	.088	.182
Durango, Colo	.099	.101	.124	.130	.140	.192	.300	.314	.234	.154	.128	.090	.168
El Paso, Tex	.128	.118	.118	.128	.159	.272	.417	.426	.361	.234	.172	.128	.222
Flagstaff, Ariz	0.114	0.123	0.130	0.122	0.132	0.154	0.292	0.348	0.247	0.150	0.118	0.098	0.169
Grand Junction, Colo	.098	.116	.137	.151	.182	.214	.288	.302	.234	.176	.131	.092	.178
Havre, Mont	.081	.083	.117	.174	.247	.334	.367	.336	.268	.202	.130	.102	.203
Helena, Mont	.089	.092	.107	.142	.200	.254	.277	.254	.219	.171	.120	.098	.169
Kalispell, Mont	.106	.104	.130	.155	.220	.278	.298	.275	.246	.202	.154	.118	.190
Lander, Wyo	0.074	0.079	0.100	0.134	0.190	0.238	0.280	0.266	0.206	0.155	0.104	0.070	0.158
Miles City, Mont	.083	.088	.130	.215	.304	.404	.446	.428	.332	.228	.144	.102	.242
Modena, Utah	.111	.118	.131	.130	.142	.151	.234	.268	.182	.144	.118	.096	.152
Phoenix, Ariz	.200	.200	.208	.194	.198	.246	.451	.508	.383	.272	.234	.186	.274
Pocatello, Idaho	.117	.120	.146	.159	.201	.242	.264	.245	.198	.182	.144	.112	.178
Pueblo, Colo	.090	.085	.106	.144	.210	.280	.358	.357	.254	.167	.114	.086	.188
Reno, Nev	0.135	0.134	0.134	0.146	0.183	0.210	0.261	0.232	0.202	0.174	0.147	0.129	0.174
Roswell, N. Mex	.138	.130	.161	.196	.258	.402	.485	.494	.402	.258	.190	.137	.271
Salt Lake City, Utah	.125	.130	.144	.159	.200	.238	.279	.284	.222	.192	.157	.120	.188
Santa Fe, N. Mex	.092	.096	.101	.114	.149	.208	.307	.306	.235	.160	.113	.085	.164
Sheridan, Wyo	.078	.084	.116	.158	.231	.328	.344	.306	.247	.168	.121	.083	.188
Spokane, Wash	.140	.143	.154	.173	.224	.260	.280	.260	.244	.220	.186	.152	.202
Tonopah, Nev	0.122	0.118	0.123	0.117	0.137	0.165	0.212	0.198	0.164	0.150	0.116	0.098	0.143
Walla Walla, Wash	.167	.183	.216	.234	.279	.320	.314	.310	.321	.284	.220	.175	.252
Winnemucca, Nev	.127	.133	.138	.144	.174	.201	.226	.214	.178	.160	.138	.116	.162
Yellowstone Park, Wyo	.080	.080	.104	.125	.166	.230	.278	.230	.190	.142	.107	.078	.151
Yuma, Ariz	.184	.206	.218	.229	.278	.364	.559	.612	.463	.307	.242	.180	.320

Pacific coast.

Eureka, Cal	0.278	0.282	0.276	0.285	0.316	0.345	0.363	0.381	0.372	0.346	0.326	0.281	0.322
Fresno, Cal	.259	.267	.278	.296	.339	.364	.376	.386	.388	.296	.270	.238	.270
Los Angeles, Cal	.309	.279	.301	.328	.370	.424	.479	.484	.440	.378	.302	.248	.359
North Head, Wash	.244	.248	.267	.280	.316	.354	.396	.402	.386	.348	.306	.262	.318
Portland, Oreg	.212	.215	.226	.246	.295	.344	.402	.404	.364	.323	.267	.230	.294
Red Bluff, Cal	.246	.249	.251	.262	.288	.302	.313	.312	.290	.274	.267	.227	.273
Roseburg, Oreg	0.228	0.234	0.232	0.246	0.283	0.328	0.365	0.358	0.332	0.315	0.272	0.232	0.286
Sacramento, Cal	.265	.284	.289	.290	.332	.368	.400	.394	.354	.319	.292	.250	.320
San Diego, Cal	.296	.314	.332	.350	.390	.444	.510	.530	.496	.424	.348	.330	.393
San Francisco, Cal	.288	.300	.297	.306	.328	.351	.376	.390	.388	.364	.330	.282	.353
San Luis Obispo, Cal	.268	.282	.294	.302	.324	.346	.378	.390	.367	.334	.288	.244	.318
Seattle, Wash	.218	.220	.223	.247	.294	.338	.380	.396	.362	.322	.268	.232	.292
Tatoosh Island, Wash	.227	.232	.234	.260	.300	.342	.384	.390	.358	.323	.278	.250	.298

Chart 1.—The average relative humidity for January, at 8 a. m., 75th meridian time.

(25-year period, 1889 to 1913, inclusive.)

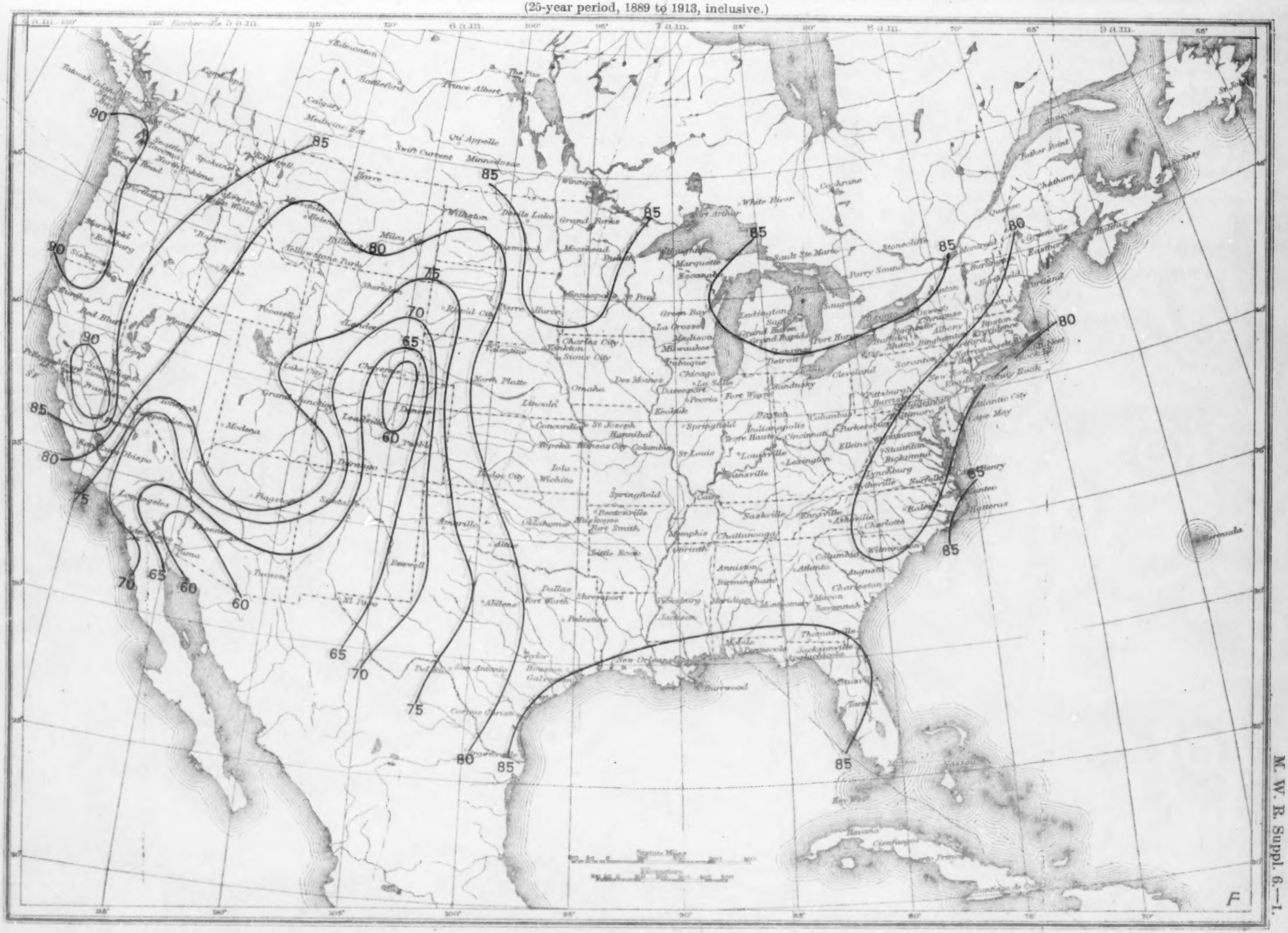


Chart 2.—The average relative humidity for January, at 8 p. m., 75th meridian time.

(25-year period, 1889 to 1913, inclusive.)

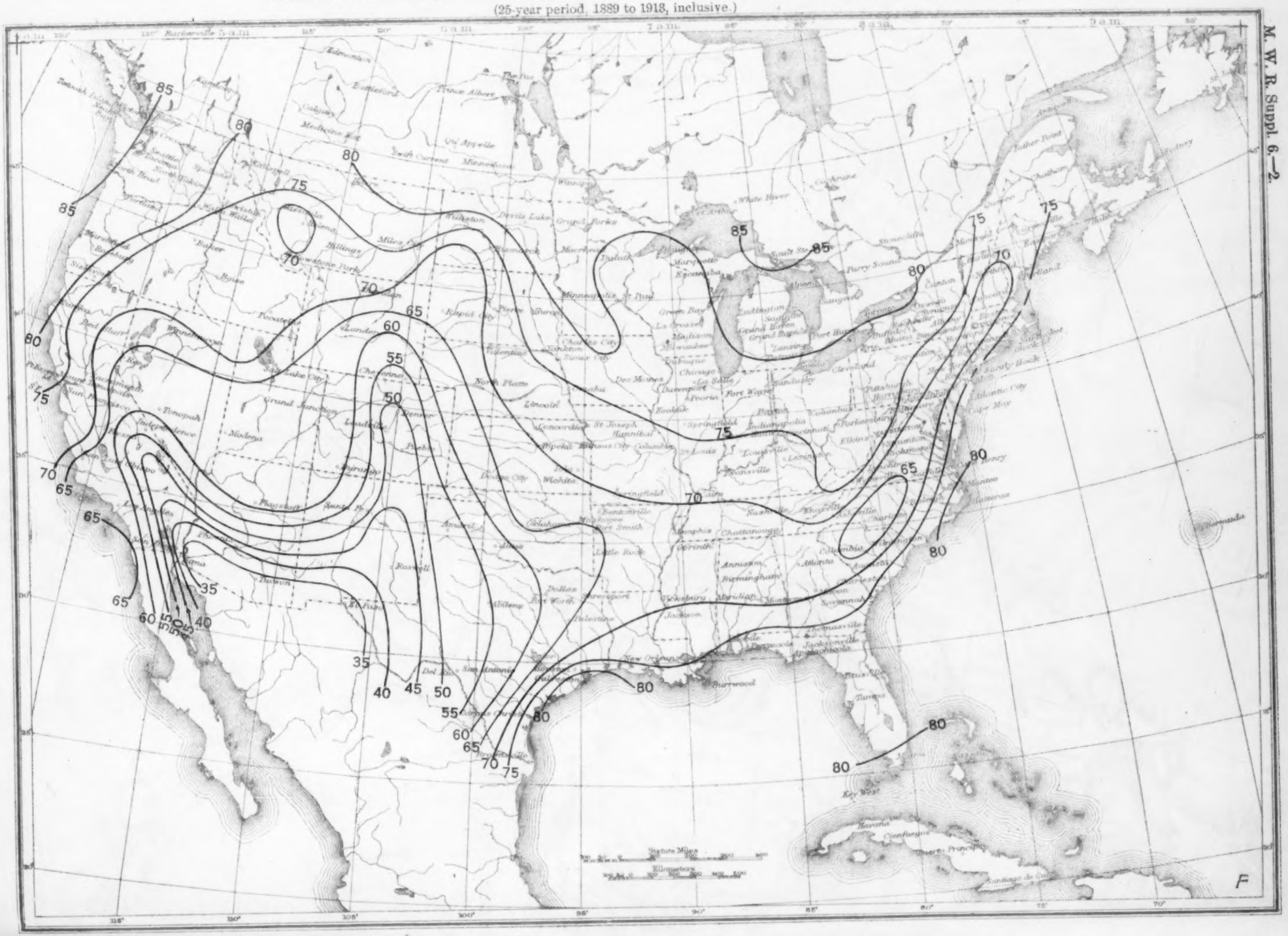


Chart 3.—The average relative humidity for April, at 8 a. m., 75th meridian time.

(25-year period, 1889 to 1913, inclusive.)

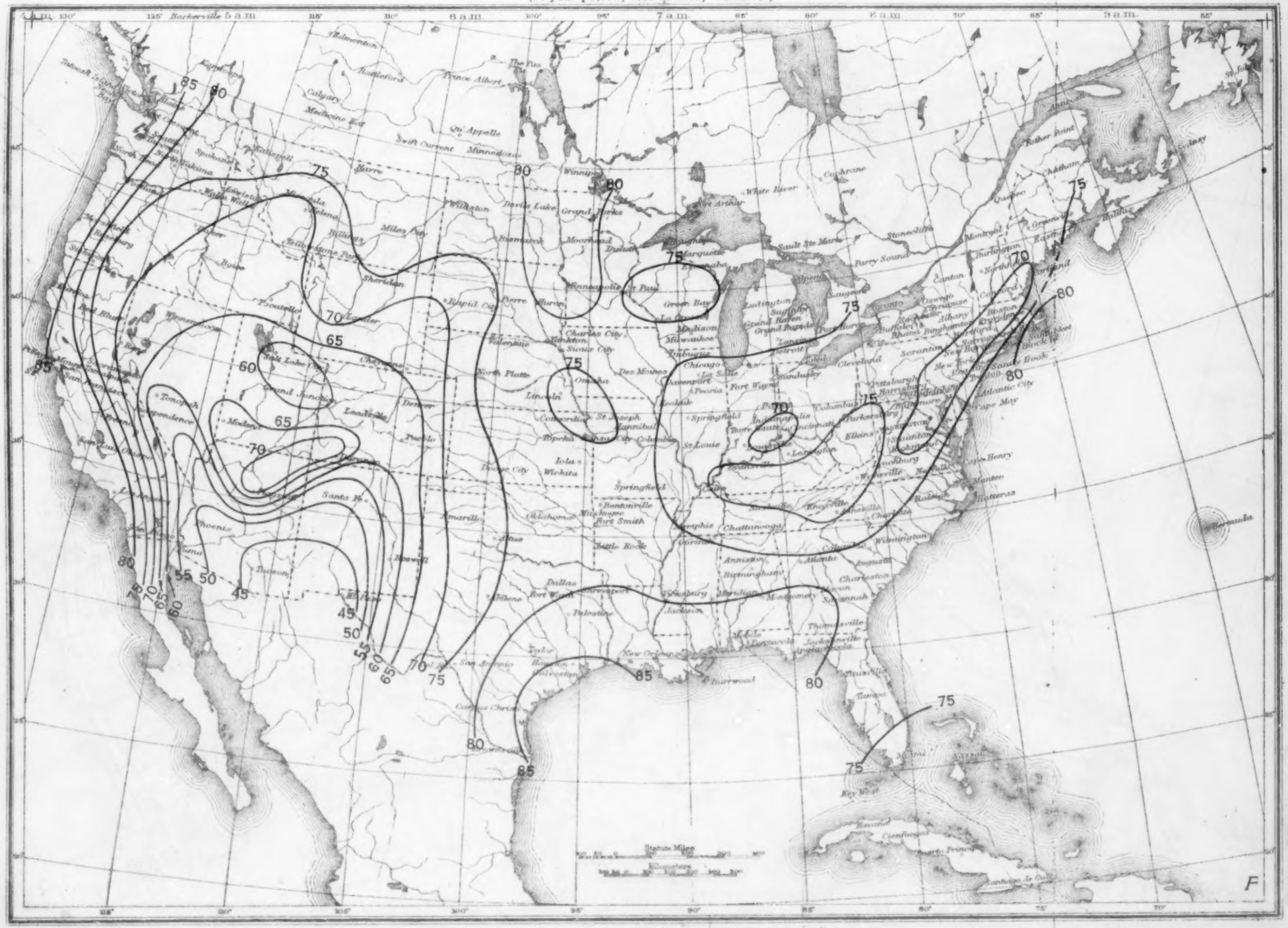


Chart 4.—The average relative humidity for April, at 8 p. m., 75th meridian time.

(25-year period, 1889 to 1913, inclusive.)

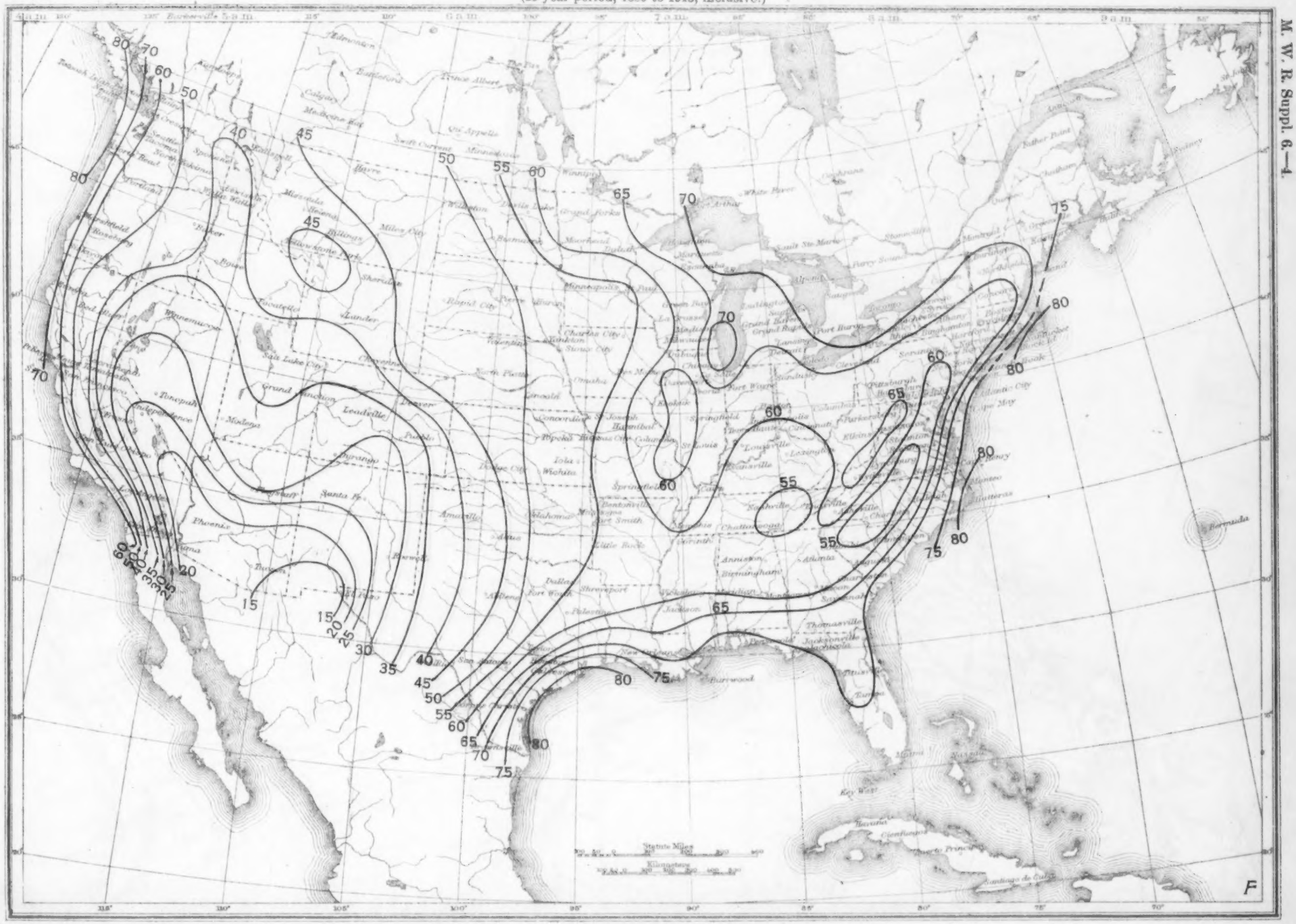


Chart 5.—The average relative humidity for July, at 8 a. m., 75th meridian time.

(25-year period, 1889 to 1918, inclusive.)

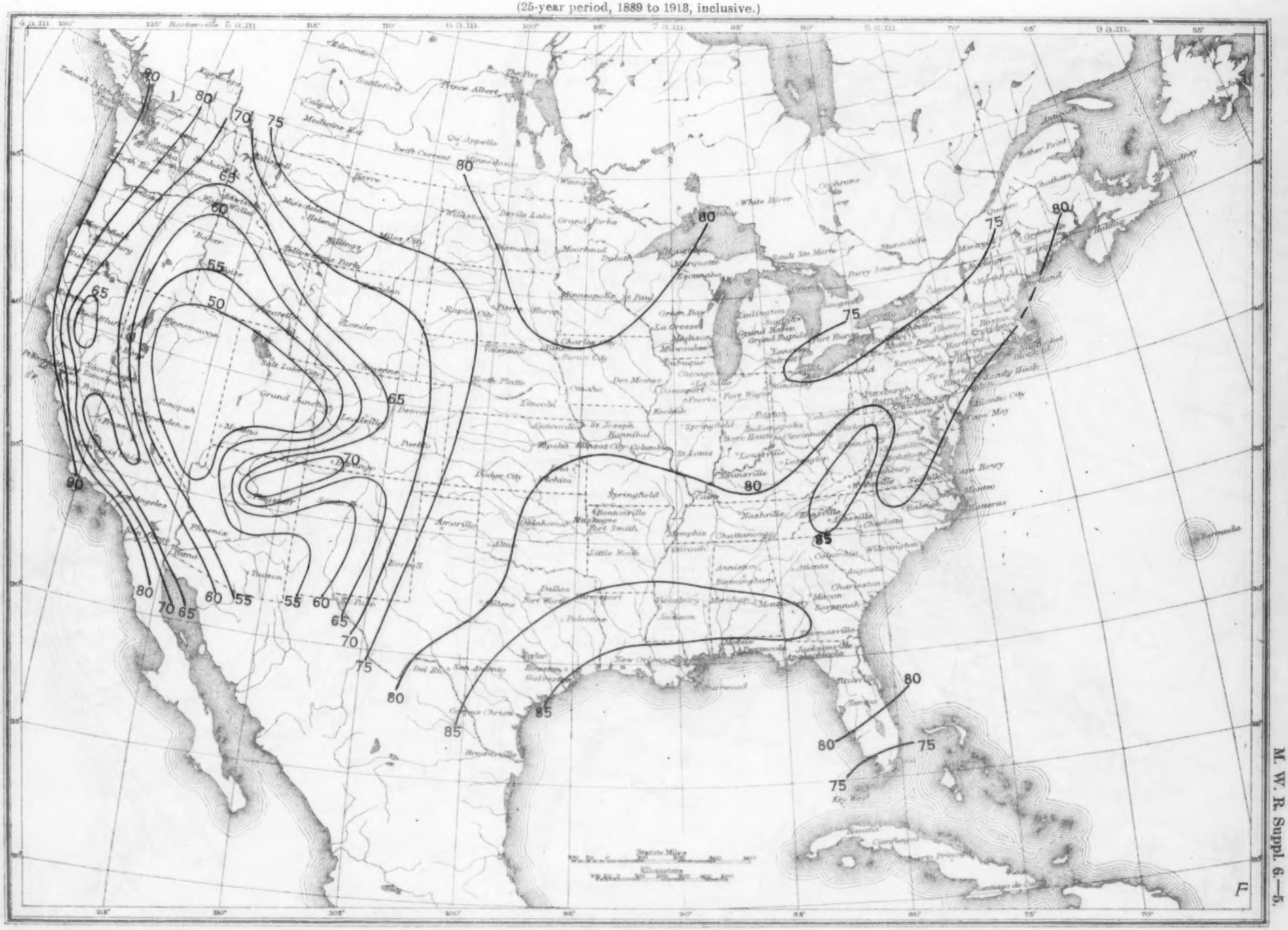


Chart 6.—The average relative humidity for July, at 8 p. m., 75th meridian time.

(25-year period, 1889 to 1913, inclusive.)

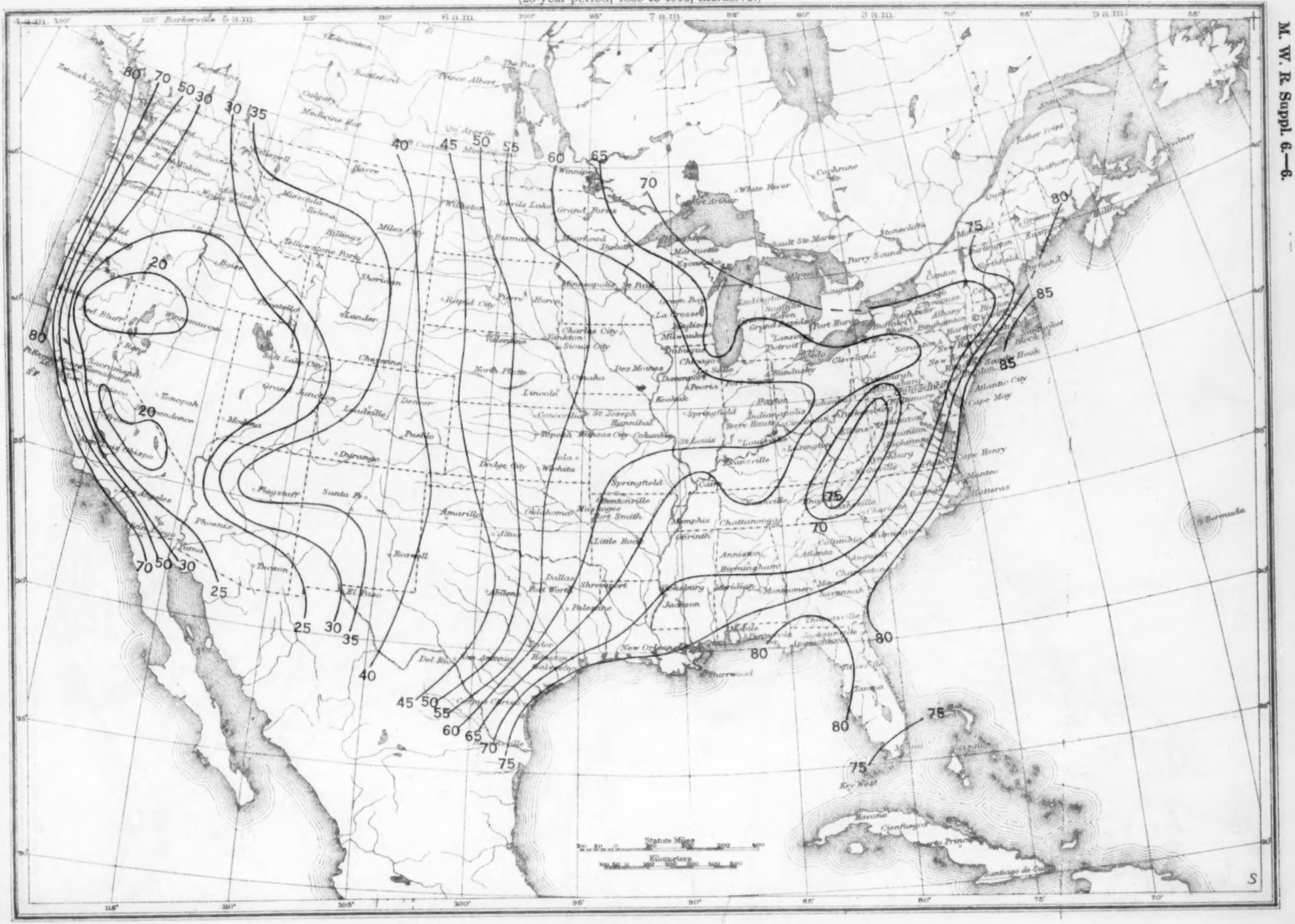


Chart 7.—The average relative humidity for October, at 8 a. m., 75th meridian time.

(25-year period, 1889 to 1913, inclusive.)

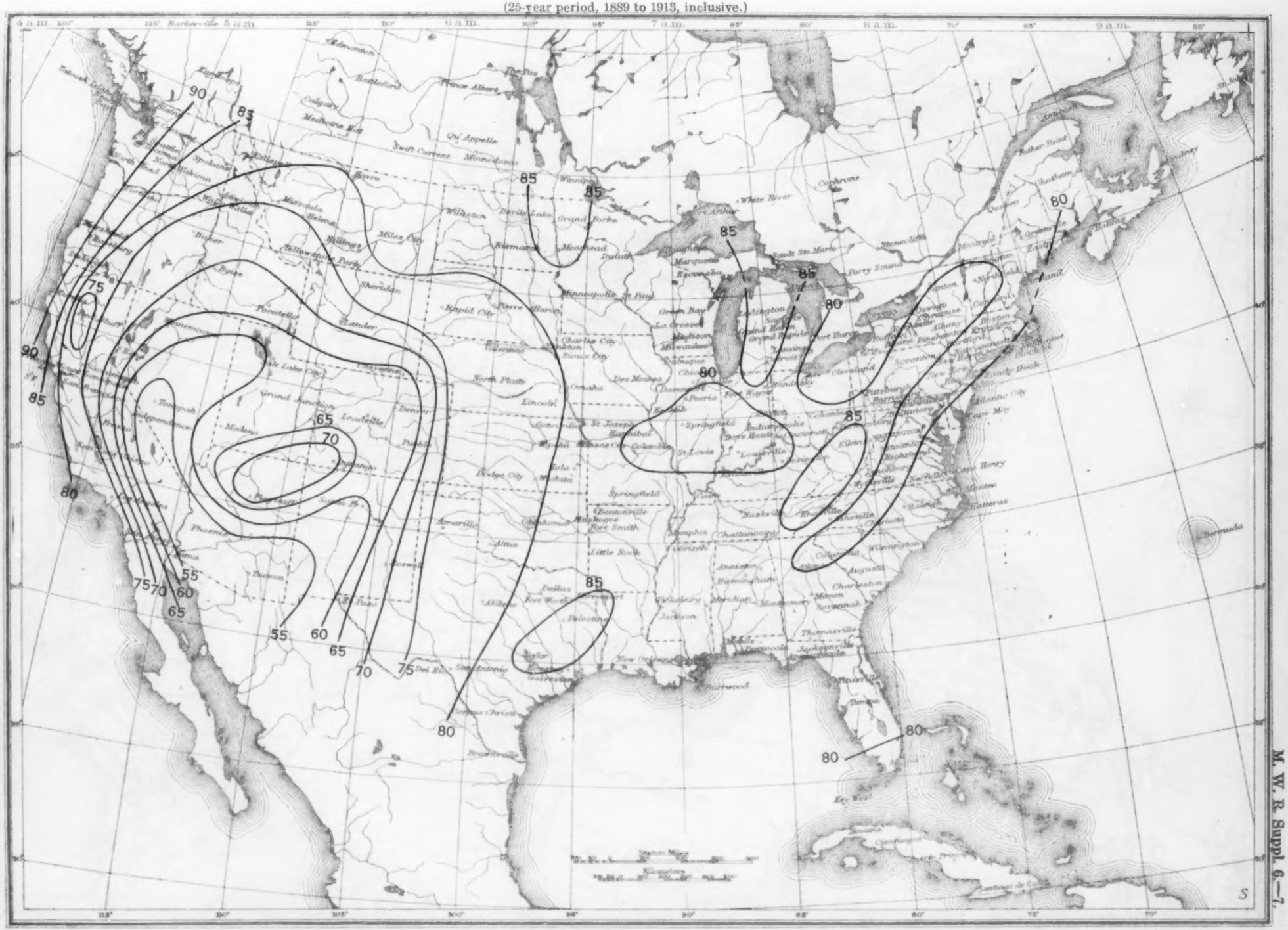

90
85
75
80
65
70
60
55
Edmonton
Battleford
Prince Albert
The Pas
Calgary
Medicine Hat
Qu' Appelle
Swift Current
Minnedosa
Winnipeg
White River
Cochrane
Moosonee
Quebec
Chatham
Sydney
Sault Ste Marie
Parry Sound
Toronto
Buffalo
Rochester
Albany
Boston
Portland
Spokane
Kalispell
Missoula
Helena
Billings
Miles City
Williston
Devils Lake
Grand Forks
Moorhead
Duluth
Baker
Boise
Yellowstone Park
Sheridan
Pierre
Huron
Rapid City
Minneapolis
St Paul
Green Bay
La Crosse
Madison
Milwaukee
Chicago
Grand Haven
Port Huron
Detroit
Erie
Cleveland
Scranton
Pittsburg
Sandy Hook
Atlantic City
Cape May
Cape Henry
Norfolk
Hatteras
Bermuda
Pendleton
Walla Walla
Lewiston
Salt Lake City
Cheyenne
North Platte
Omaha
Des Moines
Peoria
Springfield
Indianapolis
Cincinnati
Columbus
Pittsburg
Harrisburg
Baltimore
Washington
Richmond
Roanoke
Lynchburg
Grand Junction
Denver
Lincoln
Council Bluffs
St Joseph
Hannibal
Louisville
Terre Haute
St Louis
Evansville
Knoxville
Asheville
Raleigh
Wichita
Dodge City
Topeka
Kansas City
Springfield
Nashville
Memphis
Chattanooga
Charlotte
Columbia
Wilmington
Charleston
Augusta
Savannah
Macon
Atlanta
Birmingham
Montgomery
Jackson
Vicksburg
Meridian
Little Rock
Fort Smith
Benton Ville
Pine Bluff
Amarillo
Abilene
Fort Worth
Dallas
Shreveport
Palestine
Galveston
New Orleans
Mobile
Pensacola
Tallahassee
Jacksonville
Thomasville
Tampa
Key West
Havana
Phoenix
Yuma
Tucson
Prescott
Santa Fe
Albuquerque
Del Rio
San Antonio
Corpus Christi
Brownsville
Monterey
Chihuahua
Durango
Mazatlan
Guaymas
Nogales
Los Angeles
Fort Yuma
Eureka
Red Bluff
Sacramento
San Francisco
Fresno
Independence
Modena
Tonopah
Winnemucca
Roseburg
Portland
Seattle
Tatoosh Island
Port Angeles
Kamloops
Barkerville
Nelson
Rossland
Kootenay
Fort Steele
Banff
Medicine Hat
Swift Current
Qu' Appelle
Prince Albert
The Pas
Port Arthur
Nipigon
Longlac
Cochrane
Moosonee
Quebec
Chatham
Sydney
Bermuda
Havana
Key West
Tampa
Jacksonville
Thomasville
Pensacola
Tallahassee
Mobile
Montgomery
Meridian
Jackson
Vicksburg
Shreveport
Galveston
New Orleans

Chart 8.—The average relative humidity for October, at 8 p. m., 75th meridian time.

(25-year period, 1889 to 1913, inclusive.)

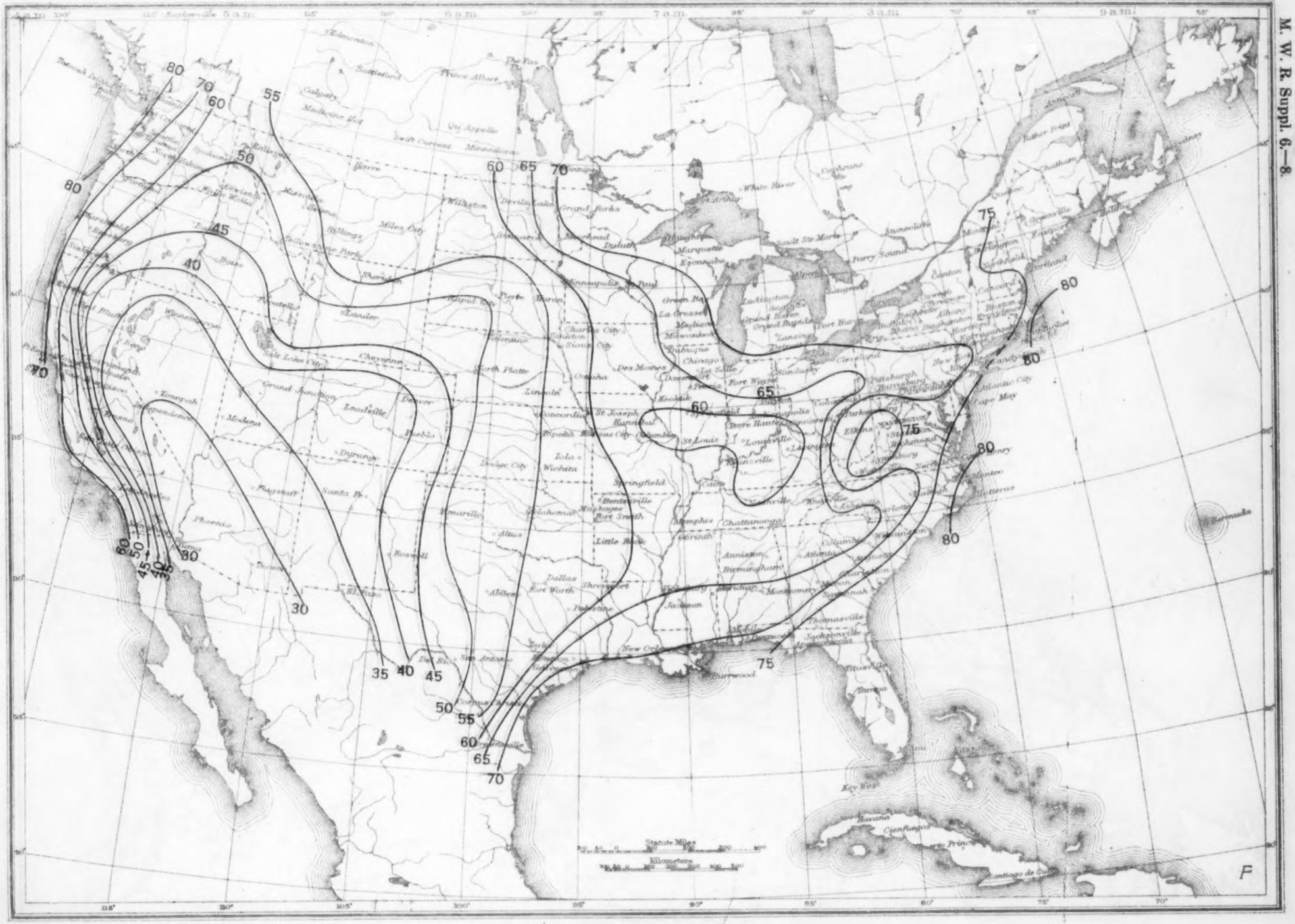


Chart 9.—The average relative humidity for January, at 3 p. m., 75th meridian time.

(Period 1882 to 1886, inclusive.)

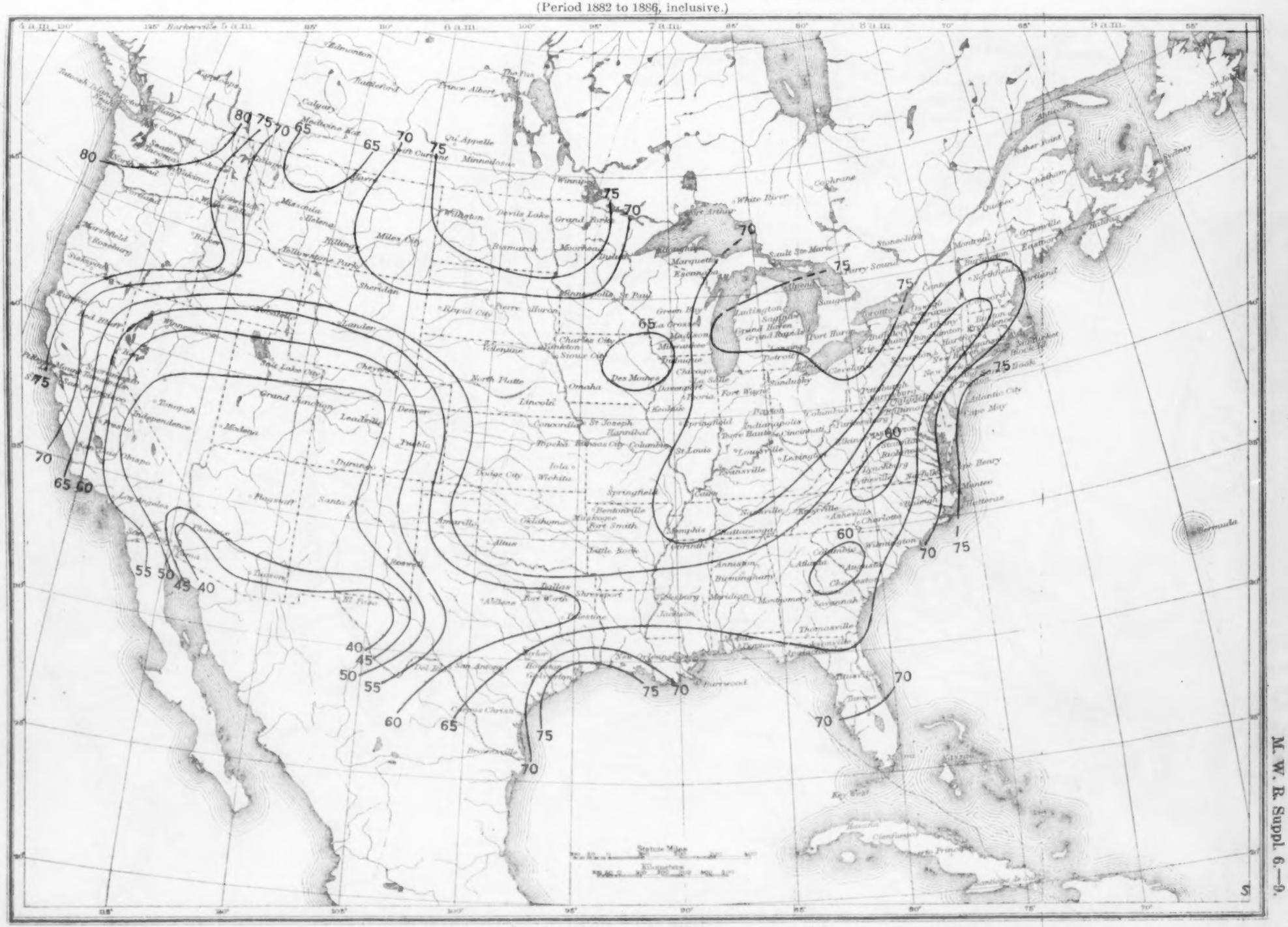


Chart 10.—The average relative humidity for January, at 11 p. m., 75th meridian time.

(Period 1882 to 1886, inclusive.)

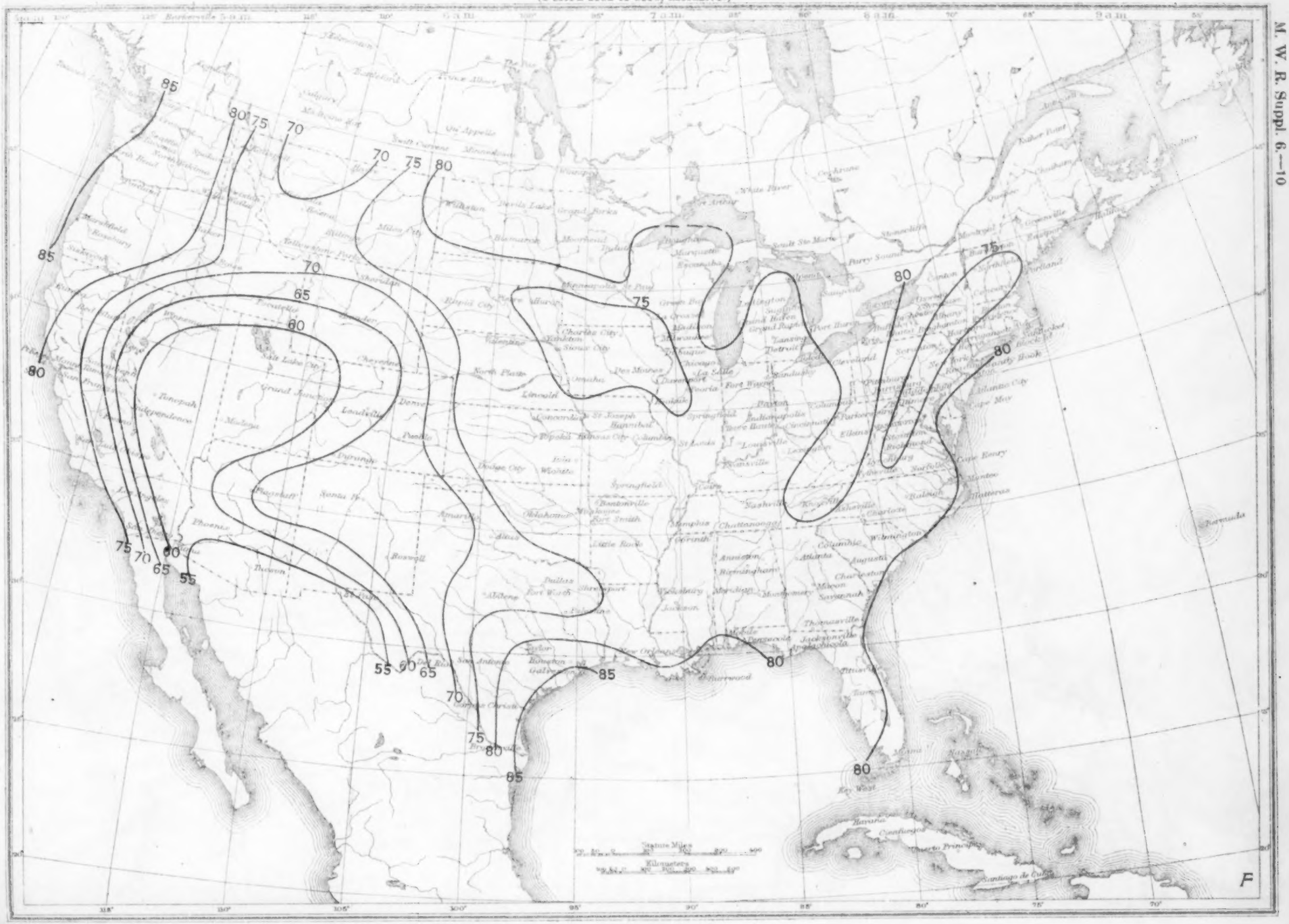


Chart 11.—The average relative humidity for April, at 3 p. m., 75th meridian time.

(Period 1882 to 1886, inclusive.)

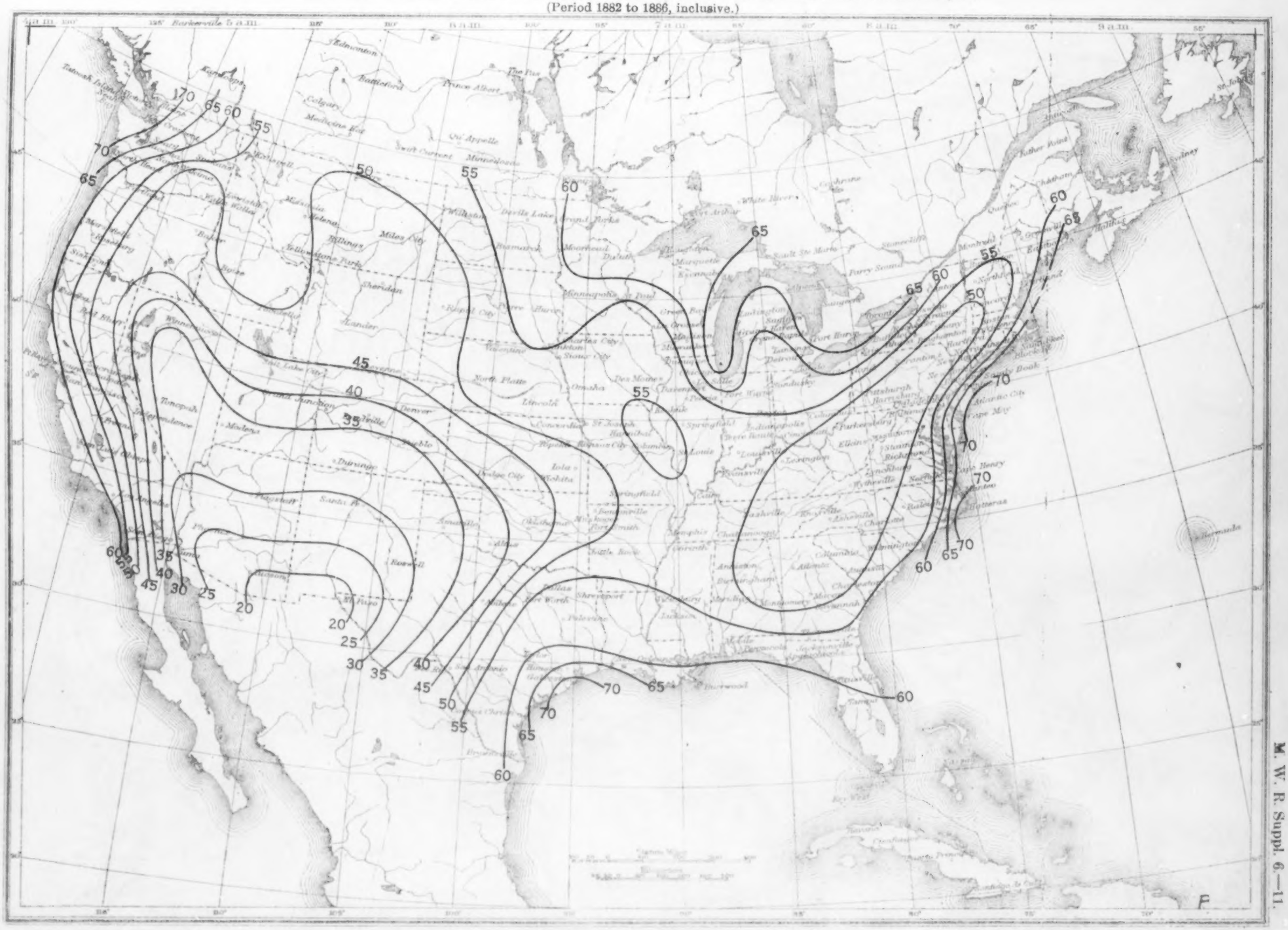


Chart 12.—The average relative humidity for April, at 11 p. m., 75th meridian time.

(Period 1882 to 1886, inclusive.)

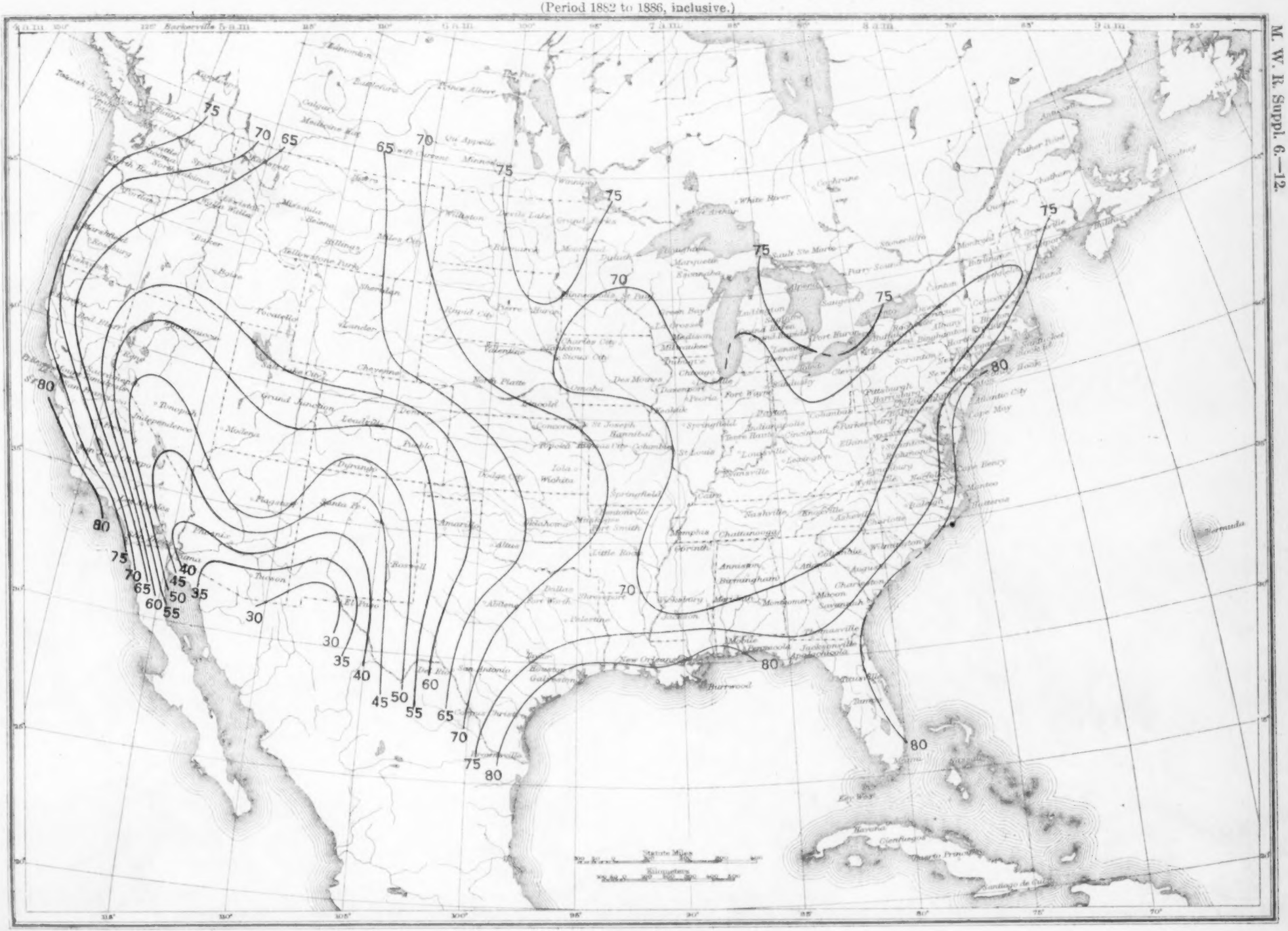


Chart 13.—The average relative humidity for July, at 3 p. m., 75th meridian time.

(Period 1882 to 1886, inclusive.)

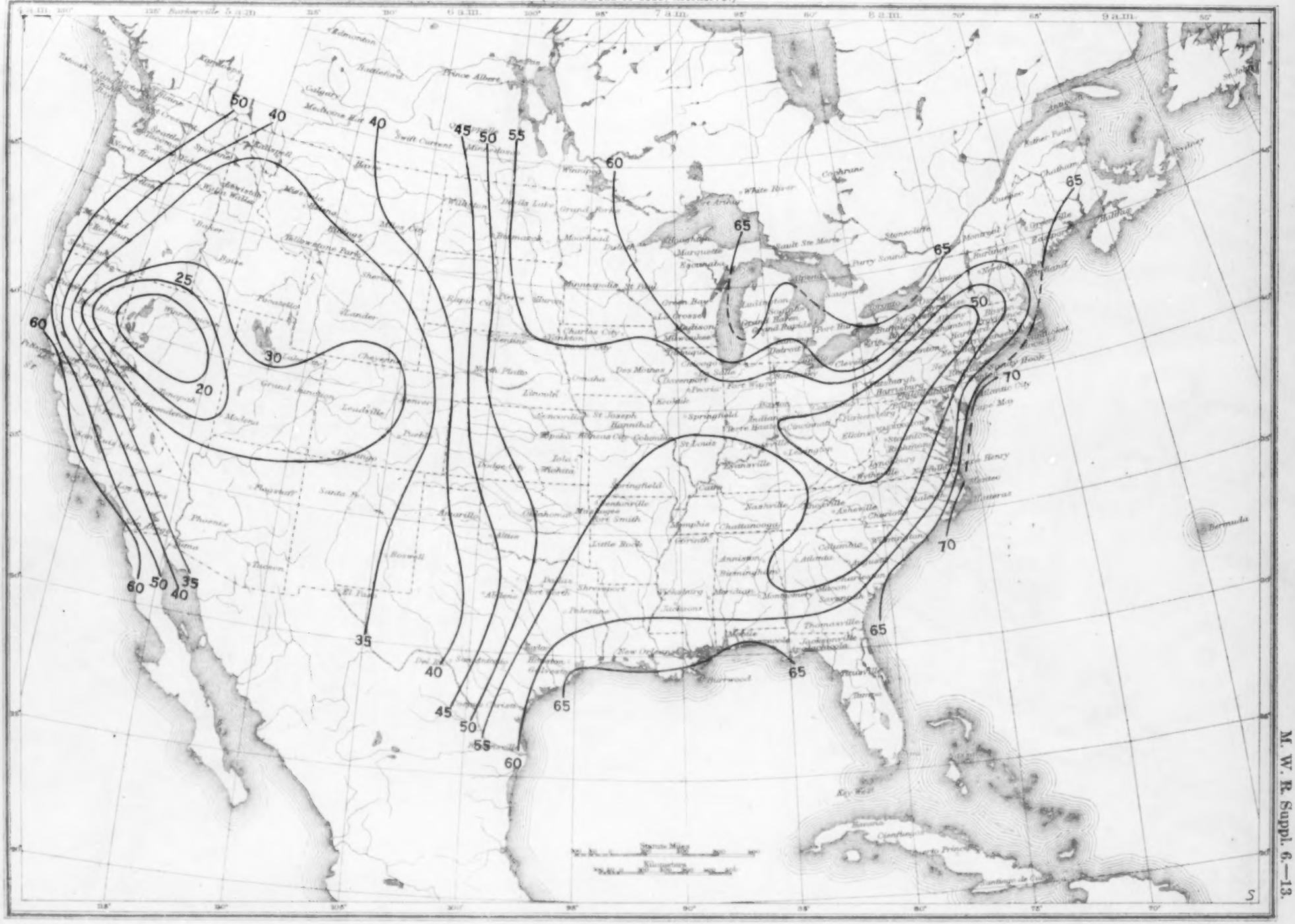


Chart 14.—The average relative humidity for July, at 11 p. m., 75th meridian time.

(Period 1882 to 1886, inclusive.)

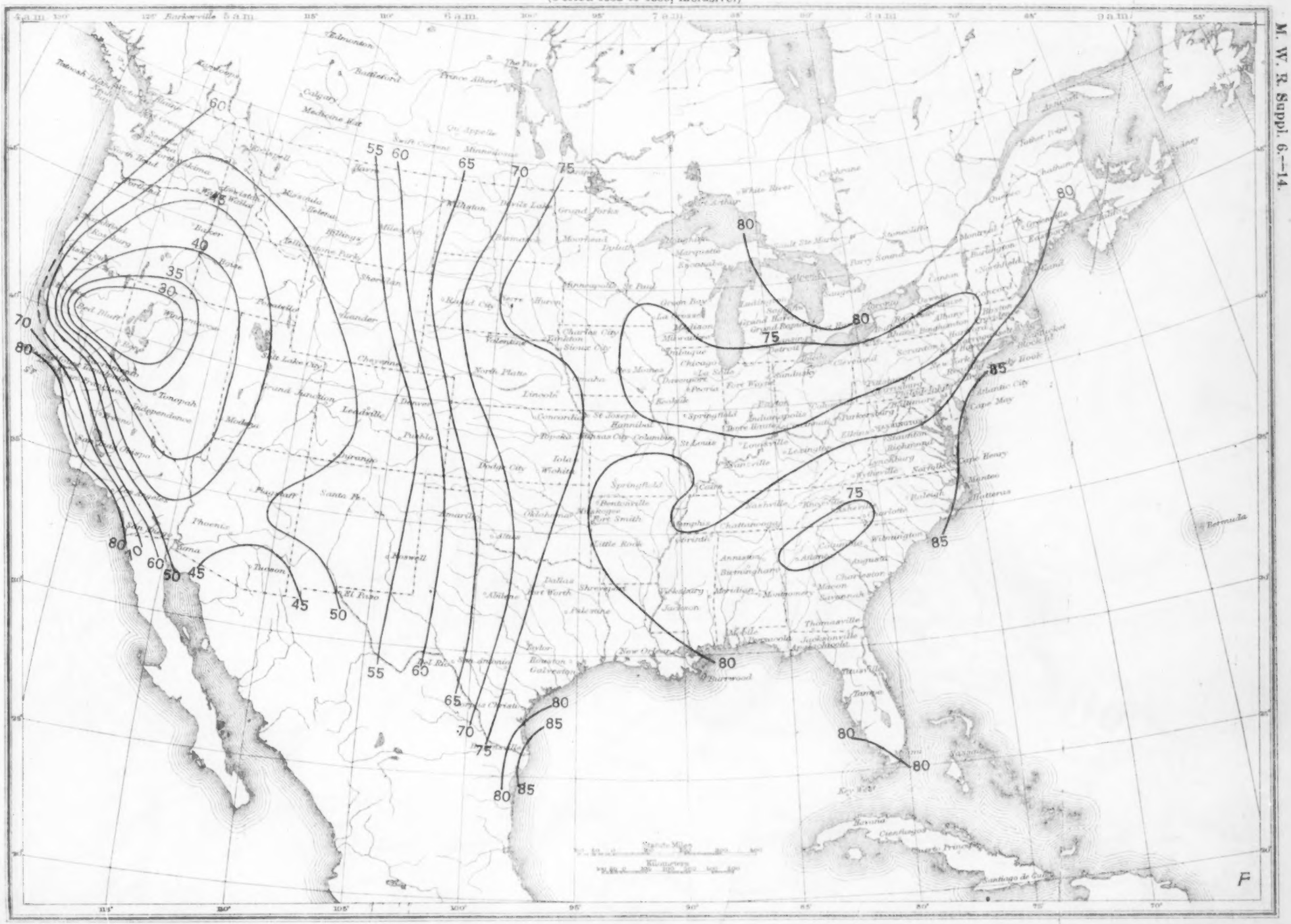


Chart 15.—The average relative humidity for October, at 3 p. m., 75th meridian time.

Chart 15.—The average relative humidity for October, at 3 p. m., 75th meridian time.

(Period 1881 to 1885, inclusive.)

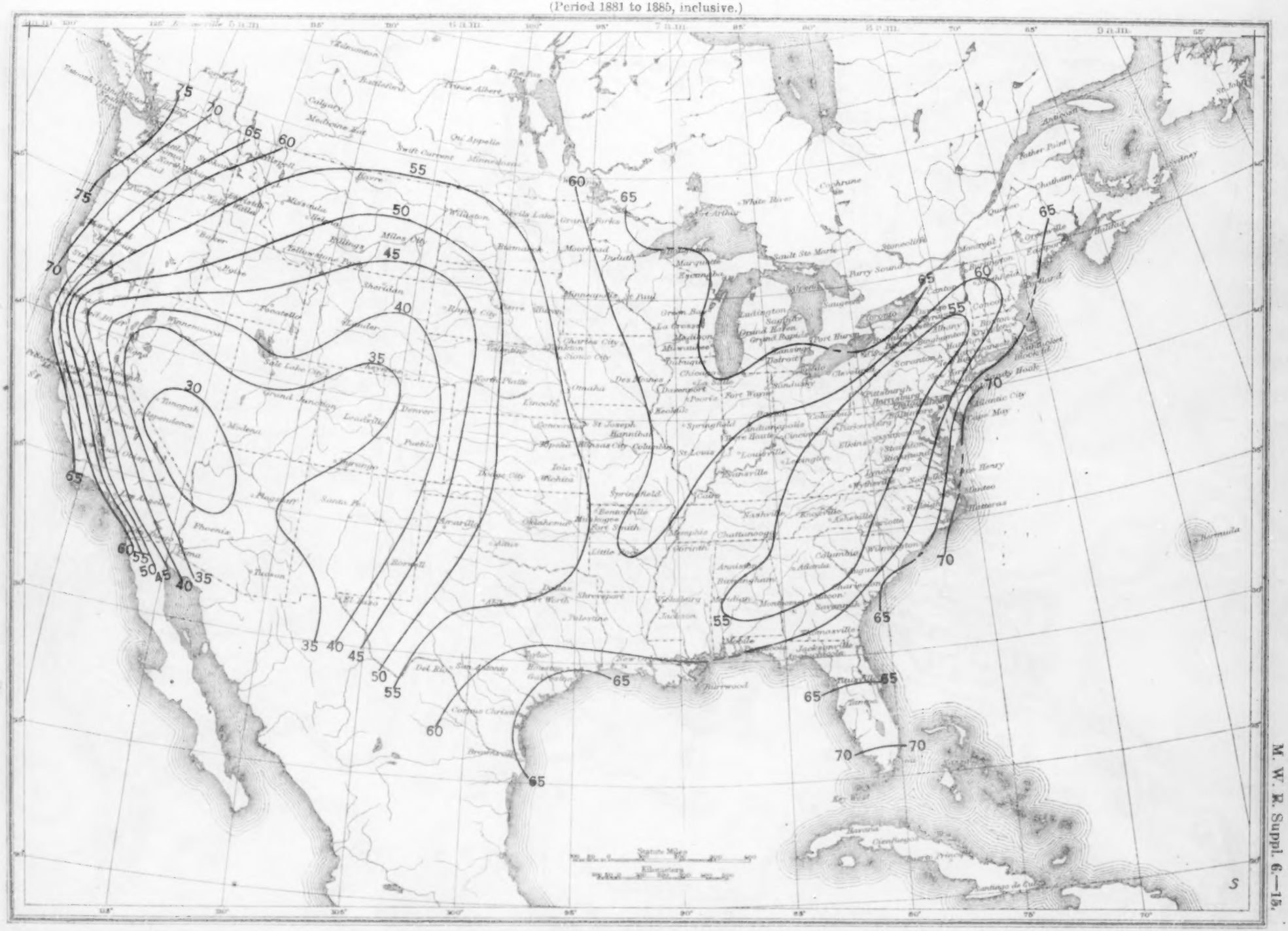


Chart 16.—The average relative humidity for October, at 11 p. m., 75th meridian time.

(Period 1881 to 1885, inclusive.)

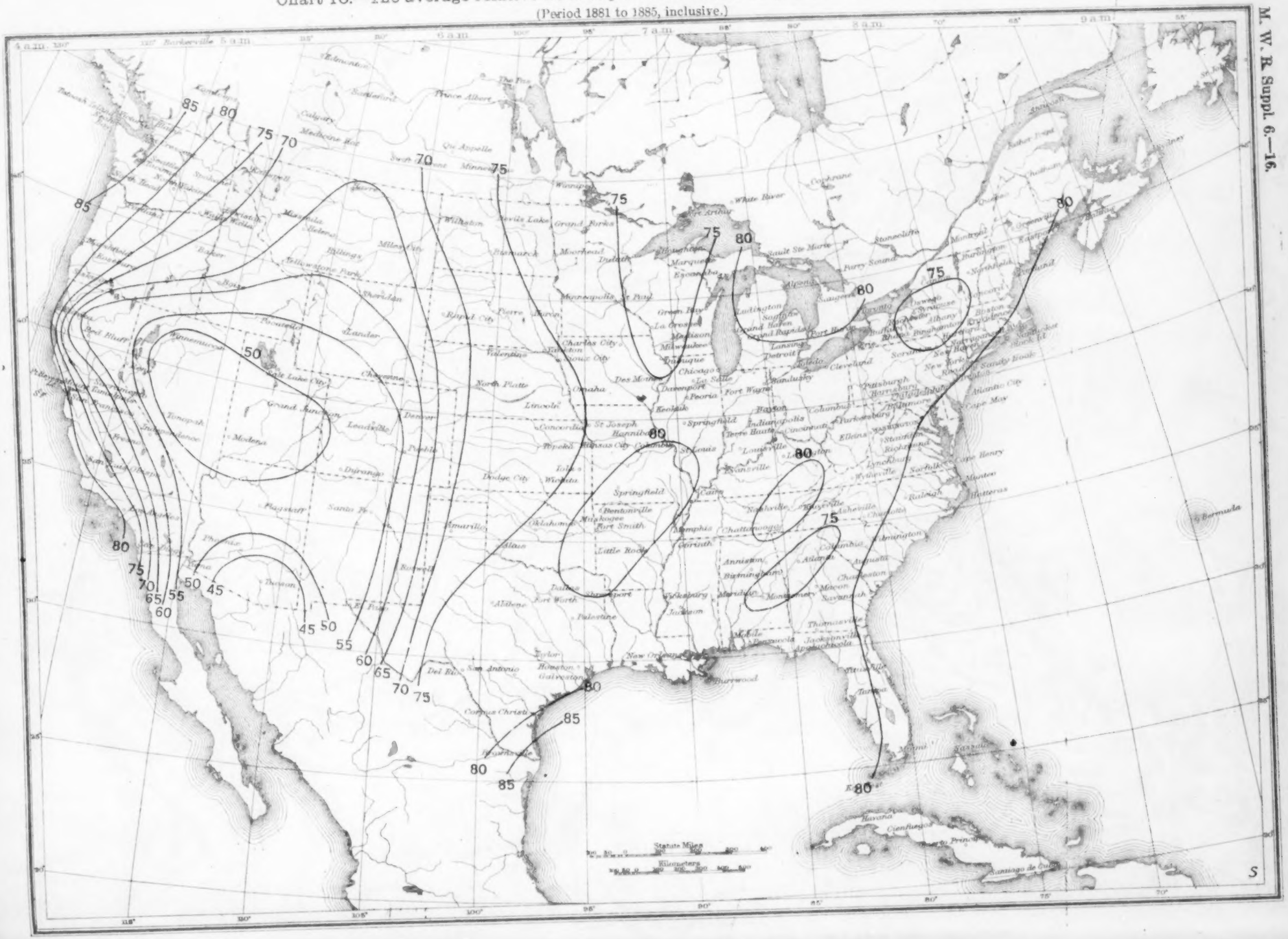


Chart 17.—The average relative humidity for January, at 2 p. m., local time.

(Period 1876 to 1880, inclusive.)

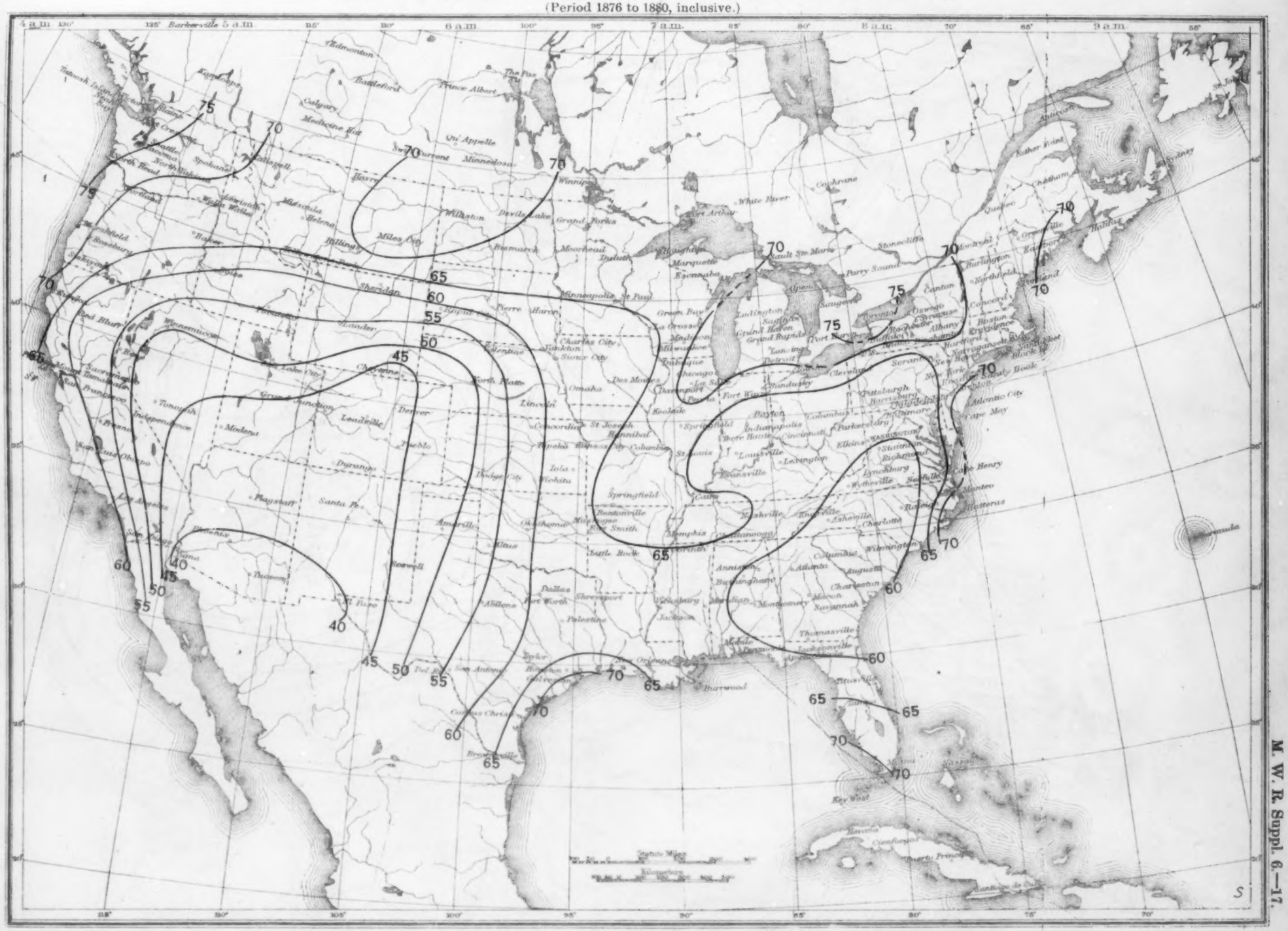

4 a.m.
5 a.m.
6 a.m.
7 a.m.
8 a.m.
9 a.m.
Barkerville
Edmonton
Battleford
Calgary
Medicine Hat
Fort Assiniboine
Fort Appelle
Prince Albert
The Pas
Winnipeg
White River
Fort Arthur
Port Arthur
Duluth
Moorhead
Grand Forks
Devils Lake
Bismarck
Miles City
Billings
Helena
Missoula
Spokane
Walla Walla
Portland
Roseburg
Baker
Sheridan
Pierre
Huron
Minneapolis
St. Paul
Green Bay
La Crosse
Madison
Milwaukee
Chicago
Grand Haven
Grand Rapids
Saginaw
Alpena
Sault Ste. Marie
Marquette
Escanaba
Parry Sound
Sarnia
Detroit
Cleveland
Toronto
Kingston
Ogdensburg
Oswego
Syracuse
Albany
Rochester
Buffalo
Fort Niagara
Canton
Burlington
Northfield
Concord
Boston
Providence
Portland
Quebec
Montreal
Father Point
Chatham
Halifax
Sydney
St. John
Charlottetown
Yarmouth
Atlantic City
Cape May
Cape Henry
Norfolk
Hatteras
Bermuda
Omaha
Des Moines
Chamberlain
Fort Yates
Fort Totten
Fort Buford
Fort Custer
Fort Keogh
Fort Maginnis
Fort Assiniboine
Fort Shaw
Fort Missoula
Fort Lapwai
Fort Walla Walla
Fort Klamath
Fort Bidwell
Fort Boise
Fort Hall
Fort Douglas
Fort Duchesne
Fort Bridger
Fort Steele
Fort Washakie
Fort Fetterman
Fort Laramie
Fort Robinson
Fort Sidney
Fort McPherson
Fort Niobrara
Fort Hartsuff
Fort Omaha
Fort Crook
Fort Calhoun
Fort Kearney
Fort Cottonwood
Fort Sully
Fort Randall

Chart 18.—The average relative humidity for April, at 2 p. m., local time.

(Period 1876 to 1880, inclusive.)

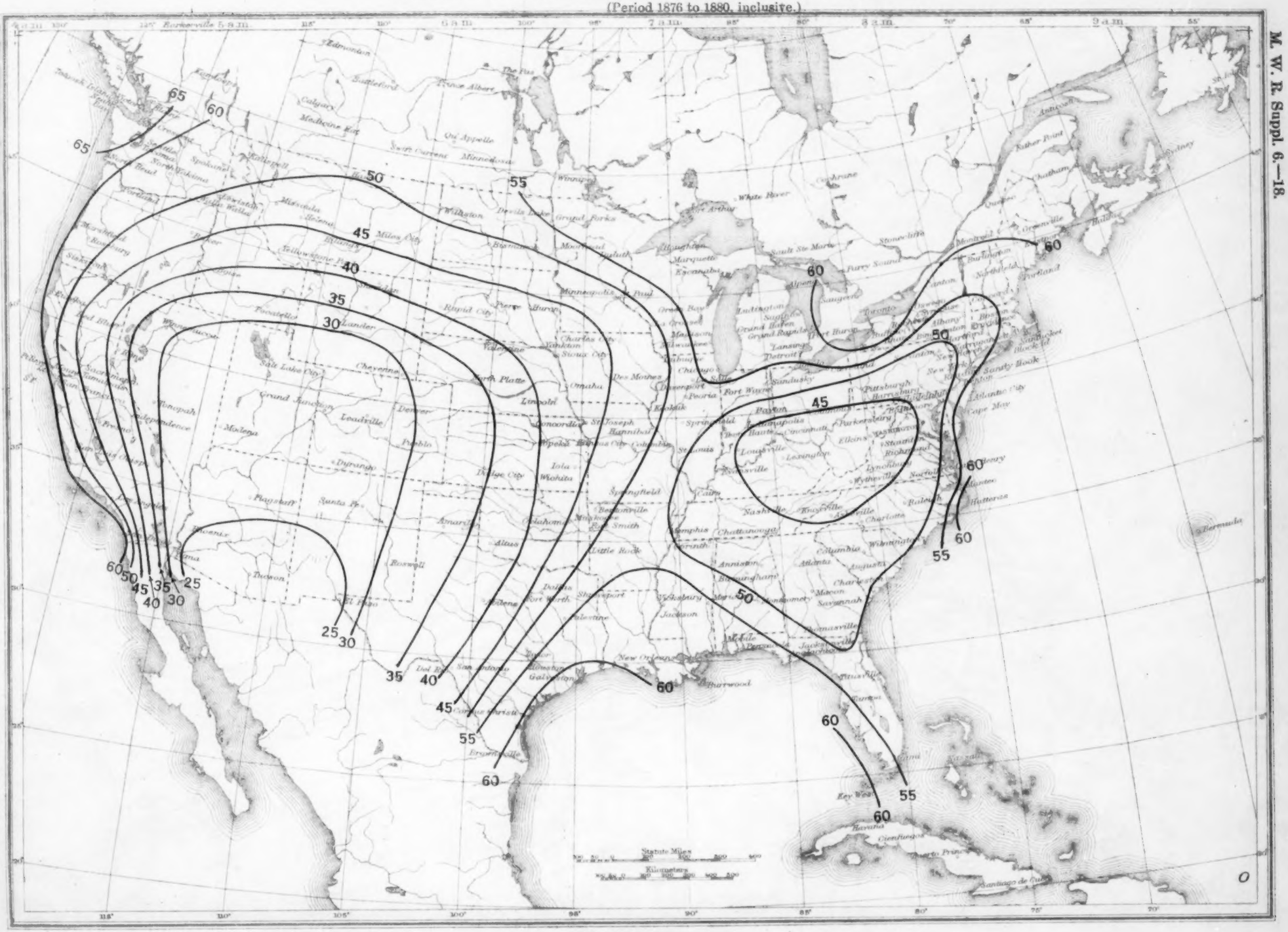


Chart 19.—The average relative humidity for July, at 2 p. m., local time.

(Period 1876 to 1880, inclusive.)

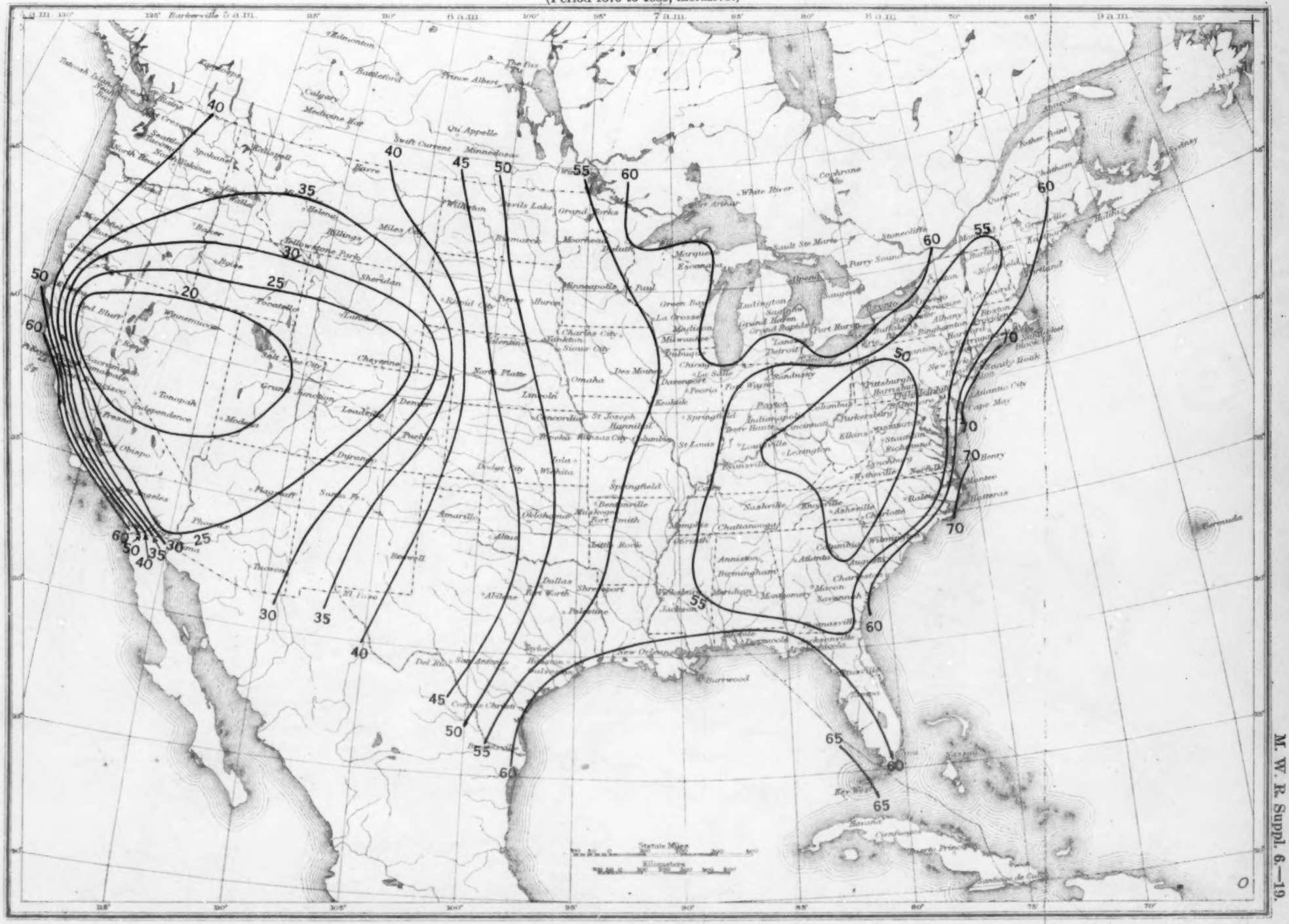


Chart 20.—The average relative humidity for October, at 2 p. m., local time.

(Period 1876 to 1880, inclusive.)

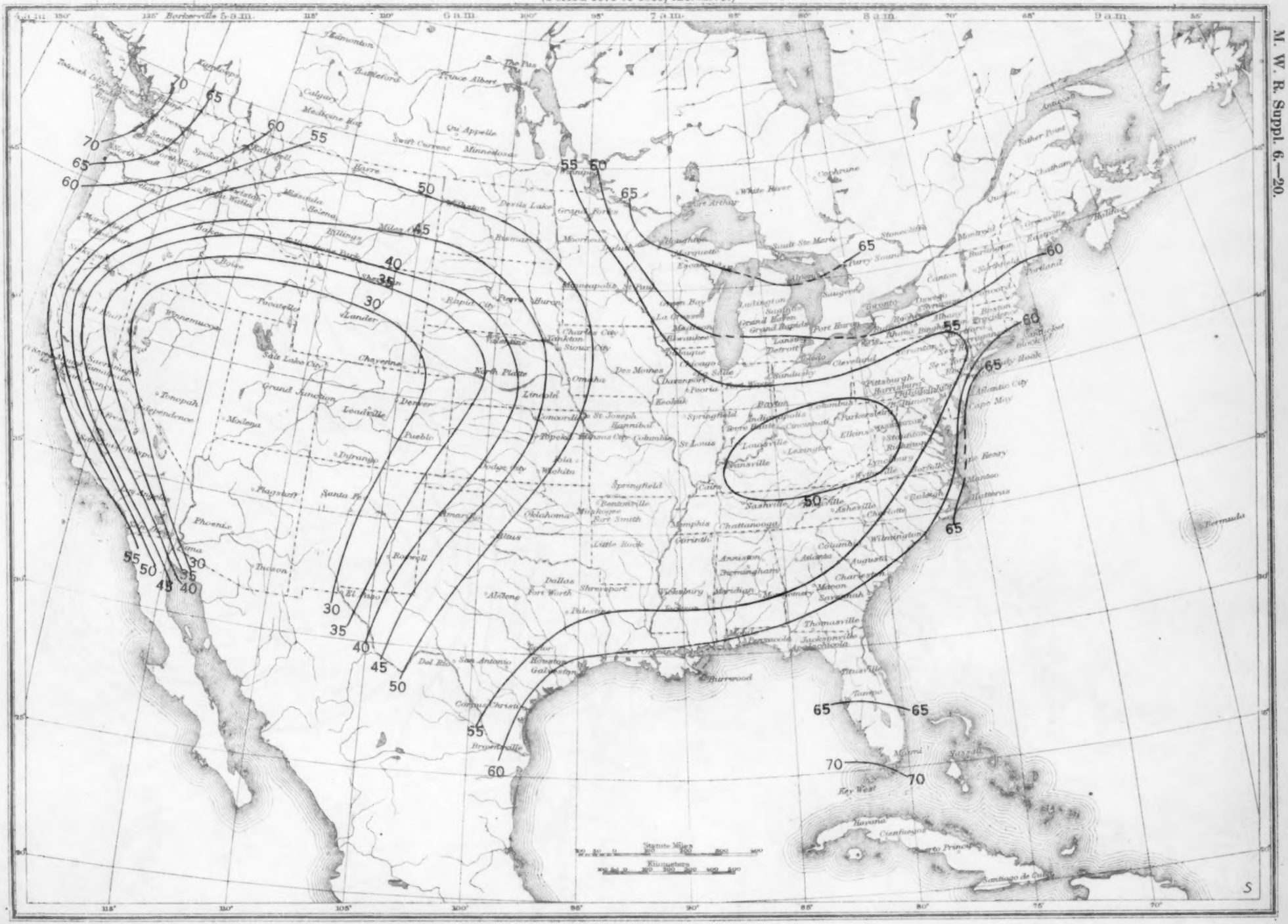
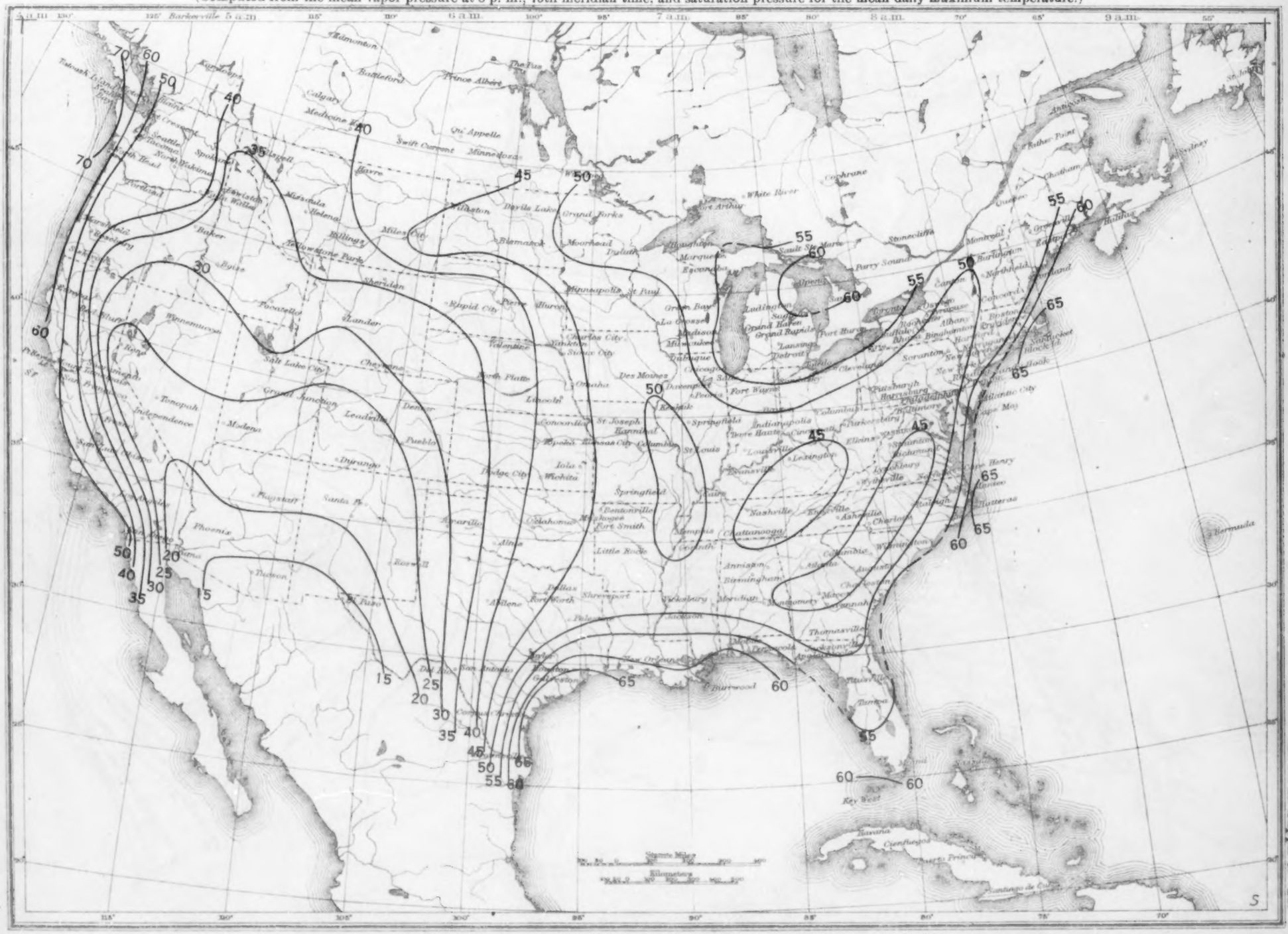


Chart 21.—The average minimum relative humidity for April.

(Computed from the mean vapor pressure at 8 p. m., 75th meridian time, and saturation pressure for the mean daily maximum temperature.)



M. W. R. Suppl. 6.—21.

Chart 22.—The average minimum relative humidity for July.

(Computed from the mean vapor pressure at 8 p. m., 75th meridian time, and saturation pressure for the mean daily maximum temperature.)

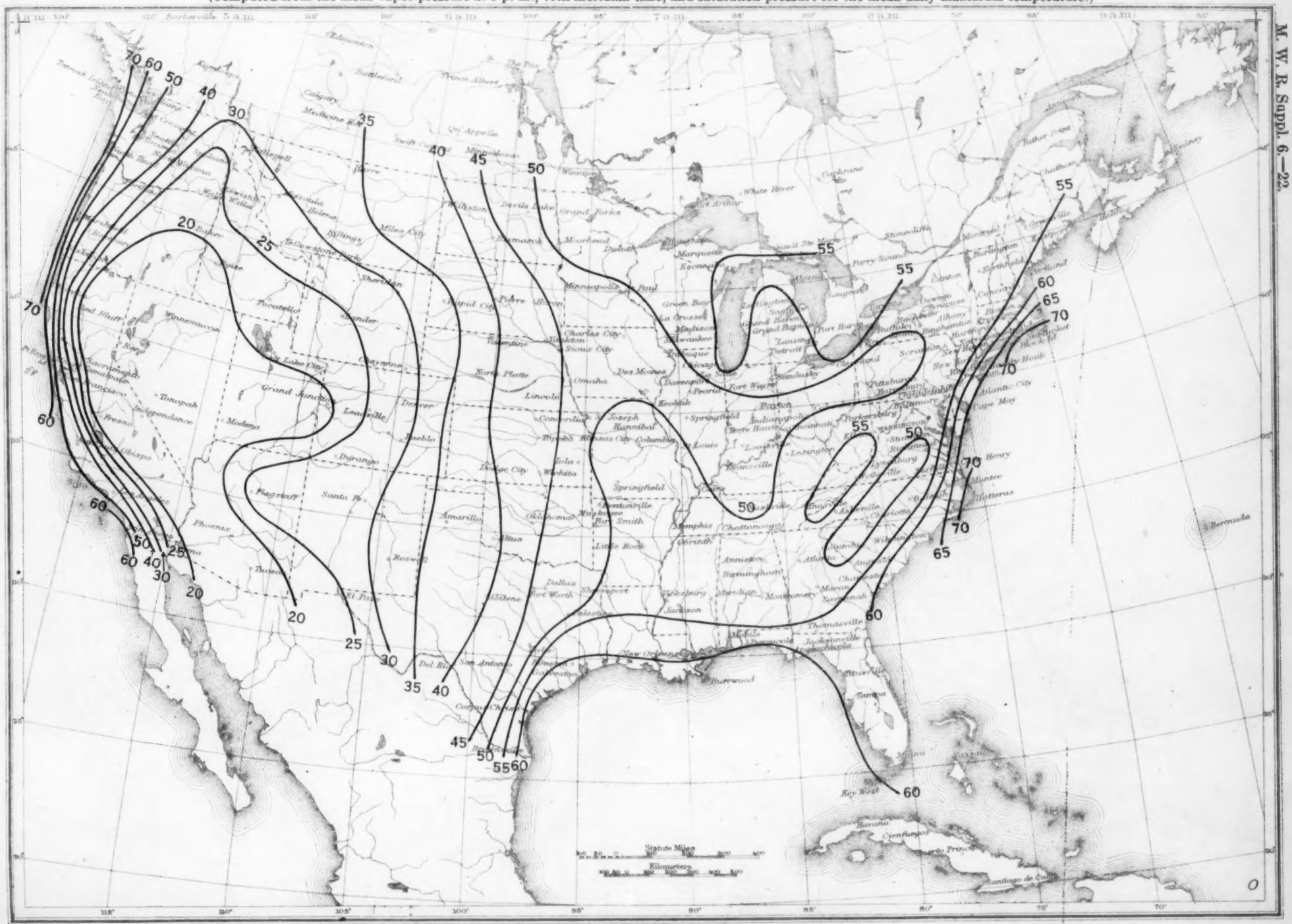


Chart 23.—The average minimum relative humidity for October.

(Computed from the mean vapor pressure at 8 p. m., 75th meridian time, and saturation pressure for the mean daily maximum temperature.)

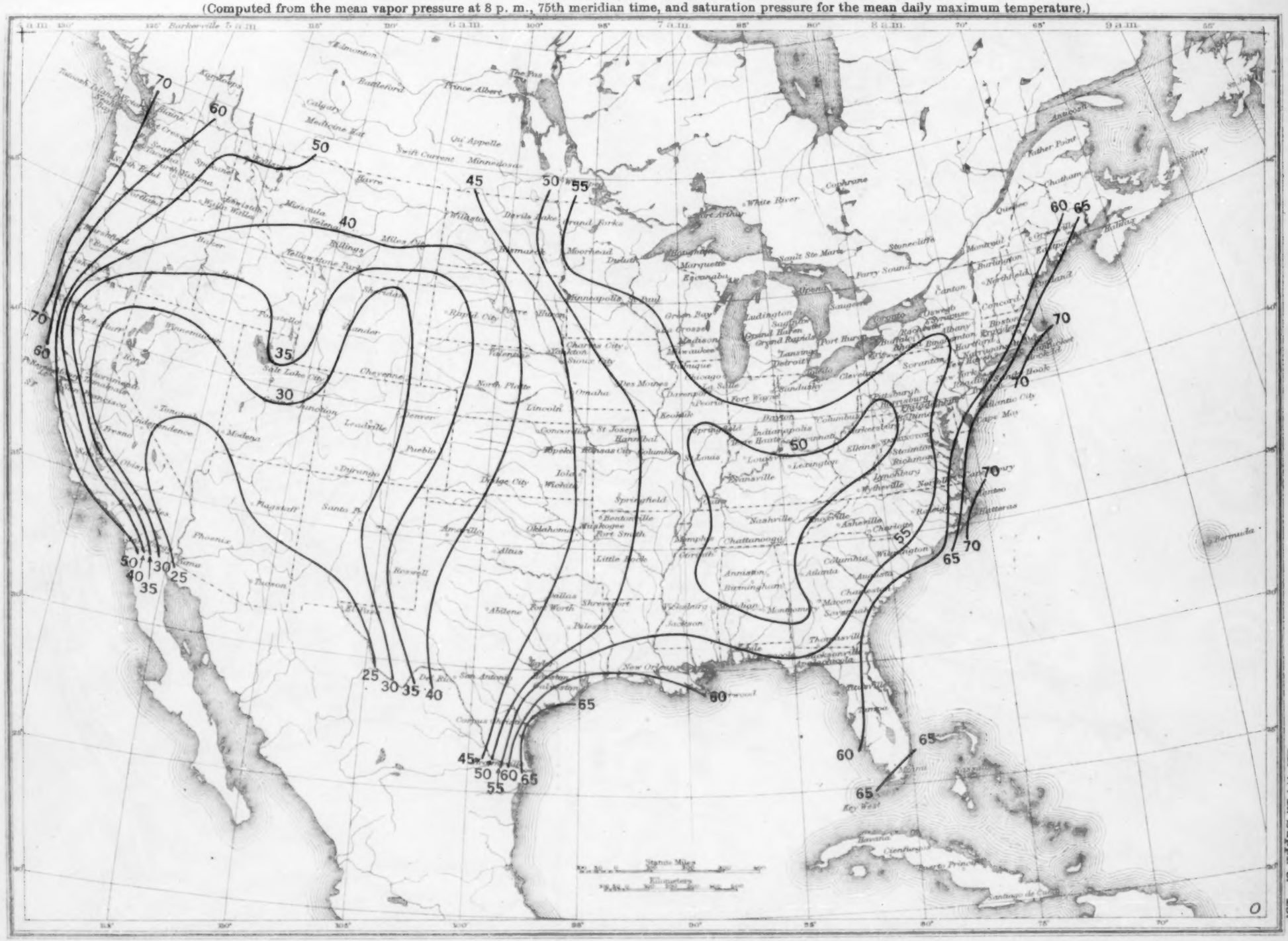


Chart 24.—The average depression of the wet-bulb at the time of the daily maximum temperature for April.

(Computed from the mean vapor pressure at 8 p. m., 75th meridian time, and the mean maximum temperature °F.)

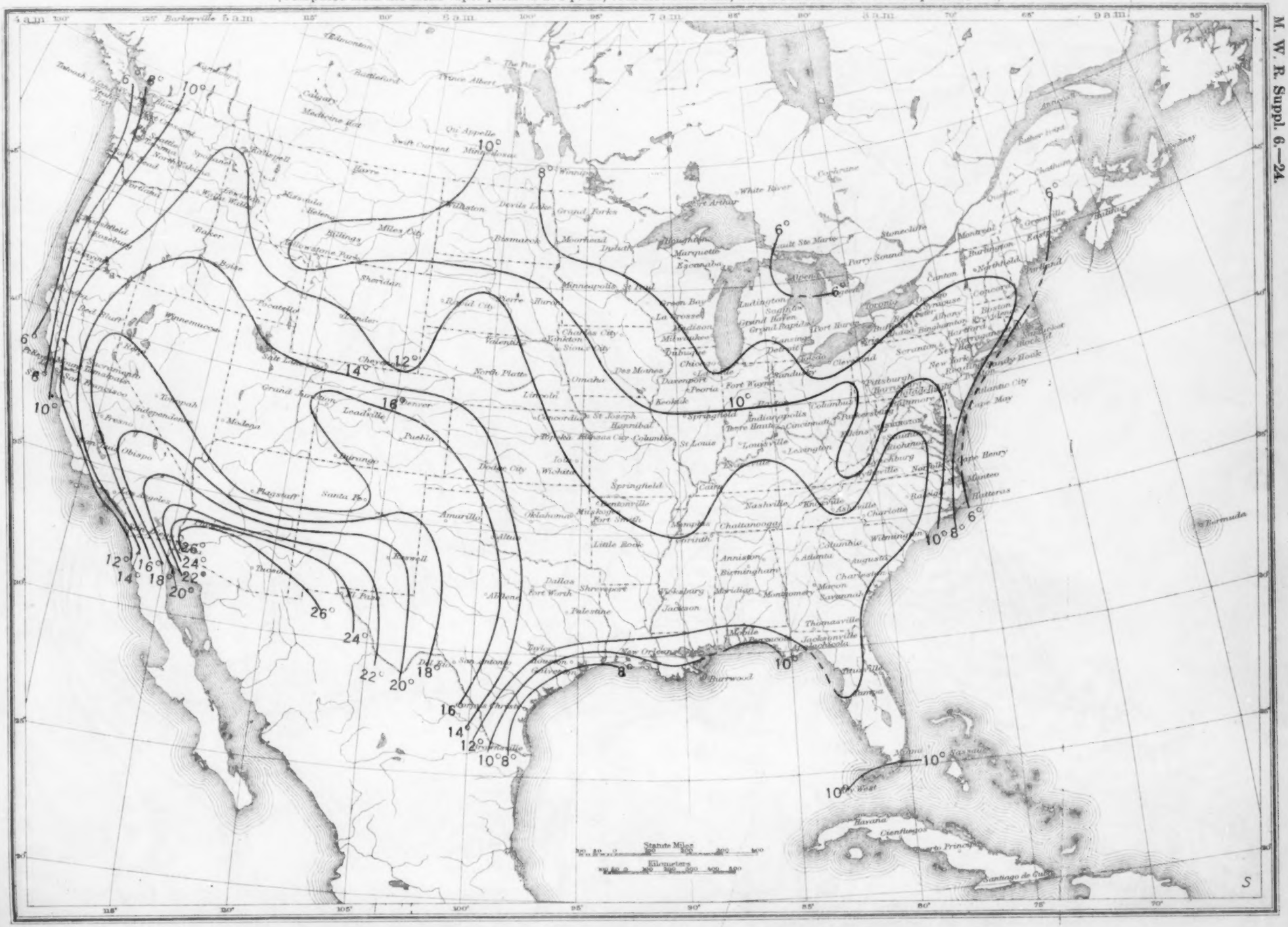
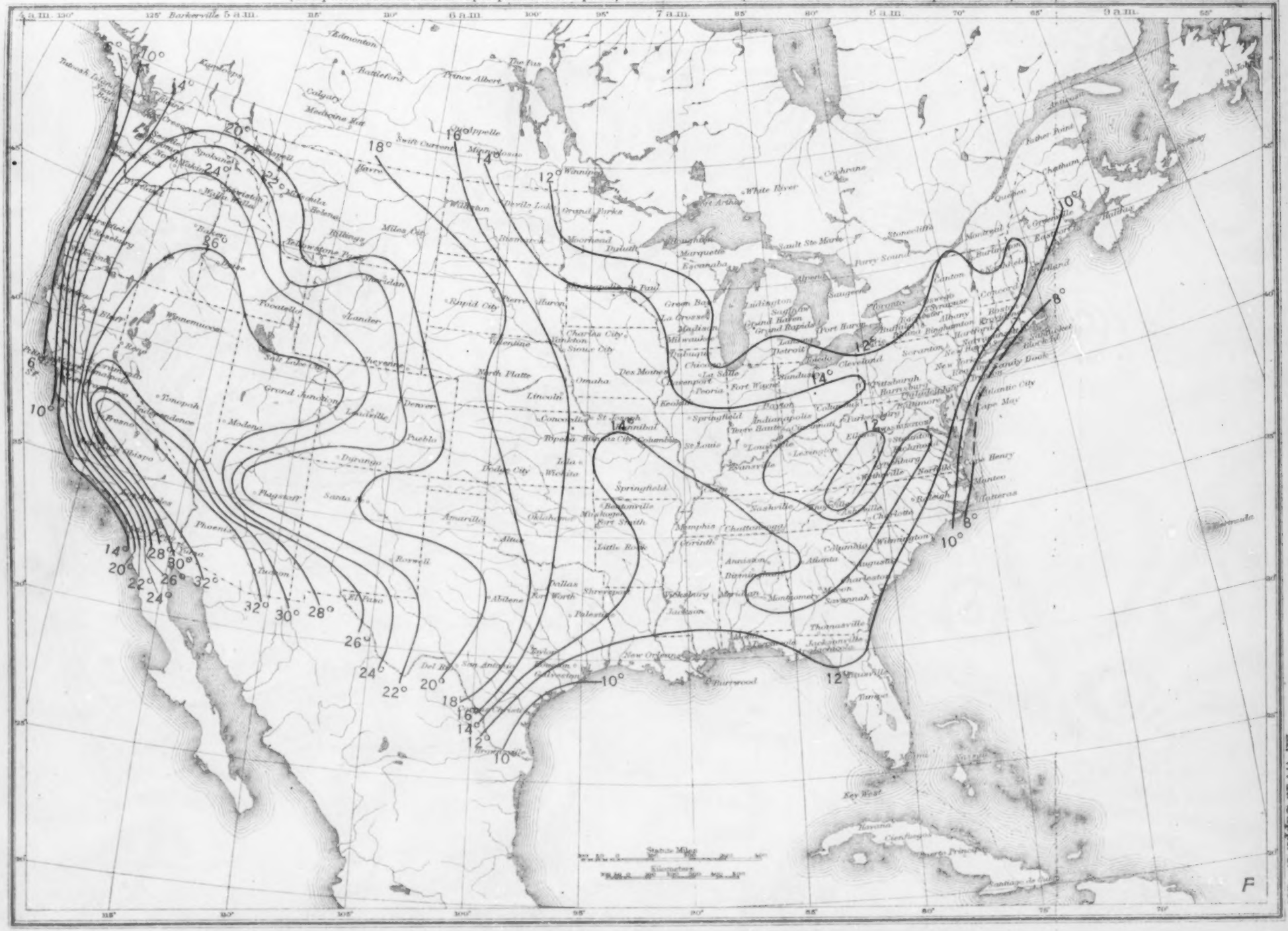


Chart 25.—The average depression of the wet-bulb at the time of the daily maximum temperature for July.

(Computed from the mean vapor pressure at 8 p. m., 75th meridian time, and the mean maximum temperature °F.)



M. W. R. Suppl. 6.—25.

Chart 26.—The average depression of the wet-bulb at the time of the daily maximum temperature for October.

(Computed from the mean vapor pressure at 8 a. m., 75th meridian time, and the mean maximum temperature °F.)

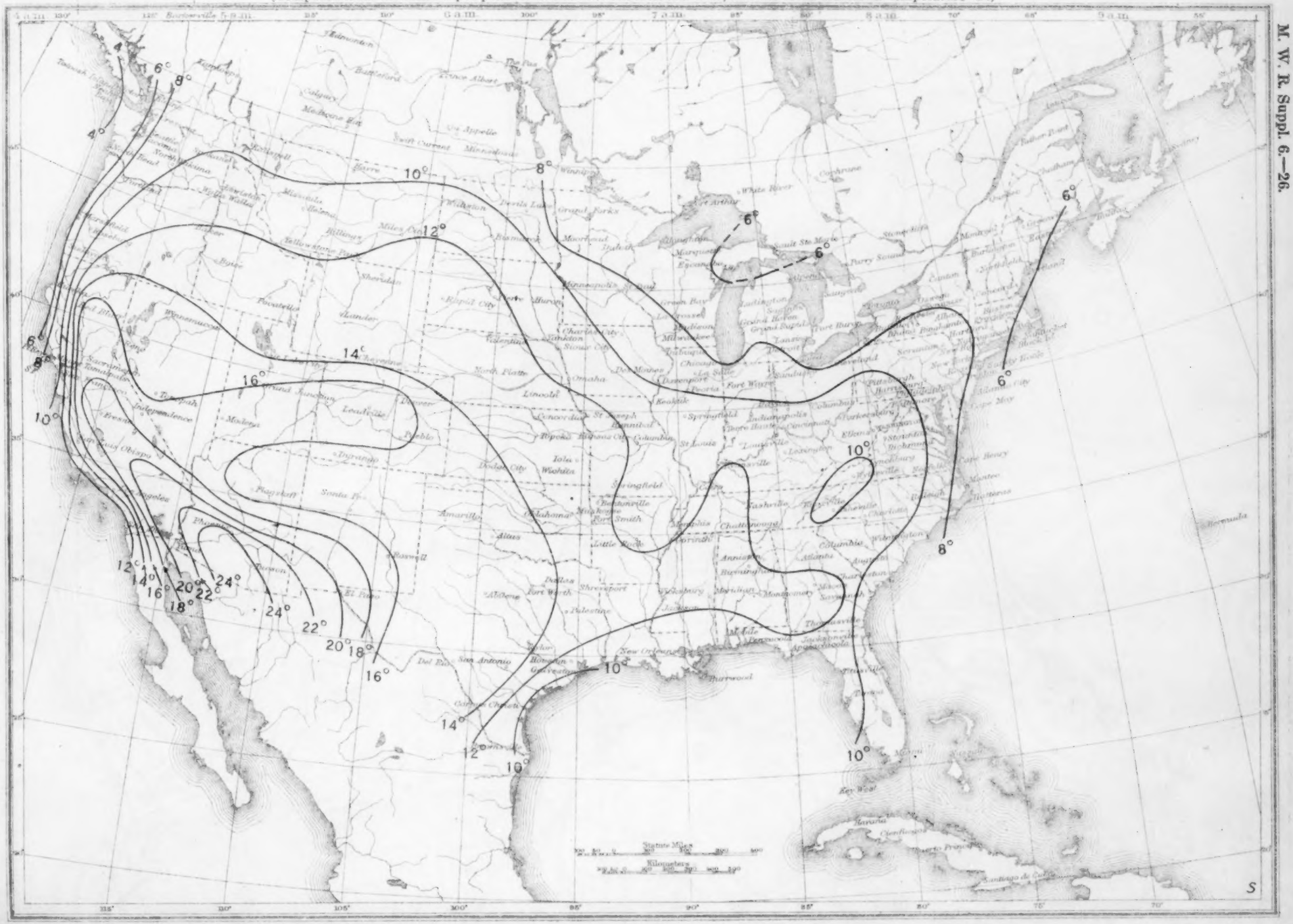
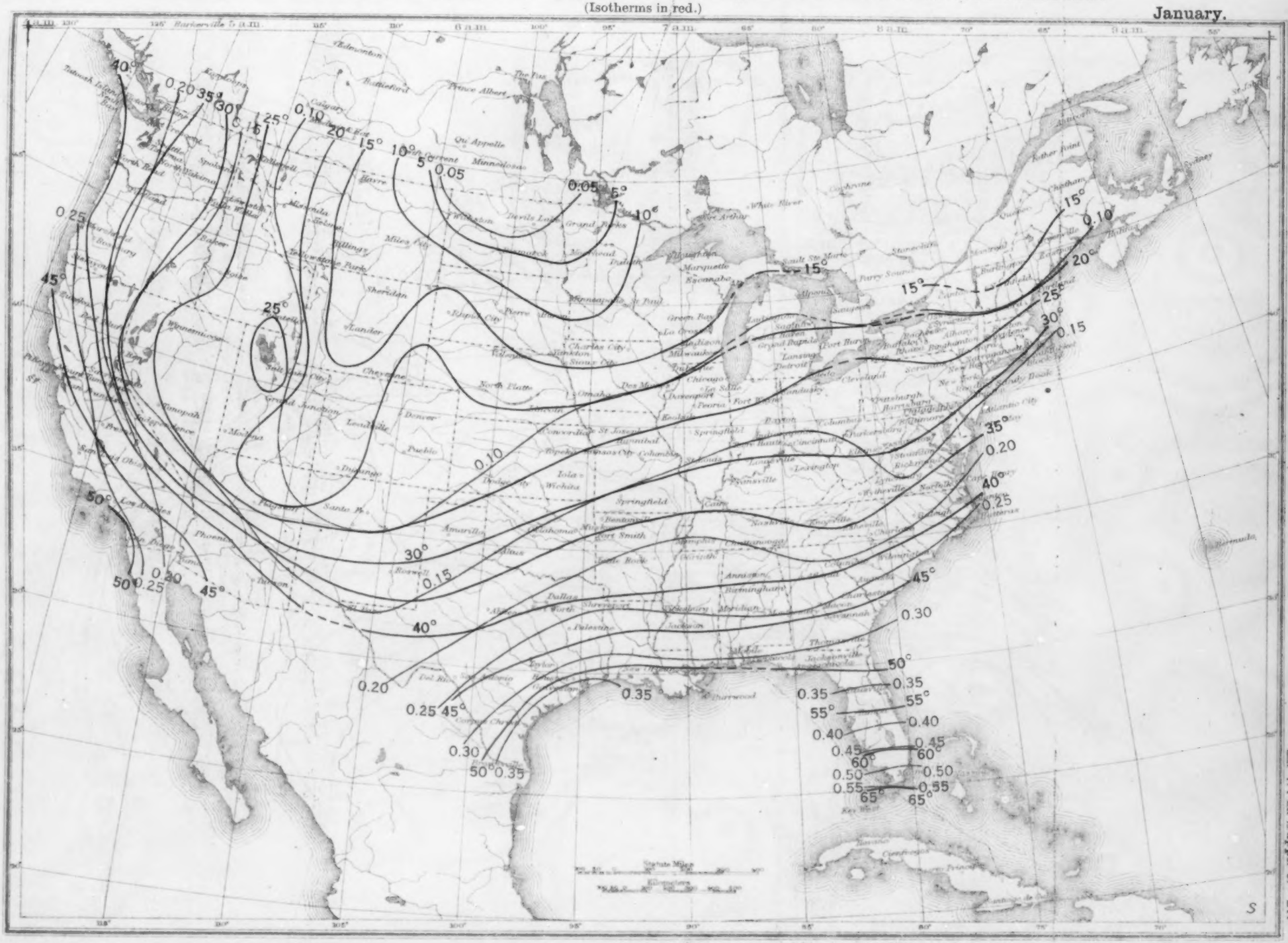


Chart 27.—The average vapor pressure (inches) and average temperature (°F) at 8 a. m., 75th meridian time.

(Isotherms in red.)

January.



M. W. R. Suppl. 6.—27.

Chart 28.—The average vapor pressure (inches) and average temperature (°F) at 8 p. m., 75th meridian time.

(Isotherms in red.)

January.

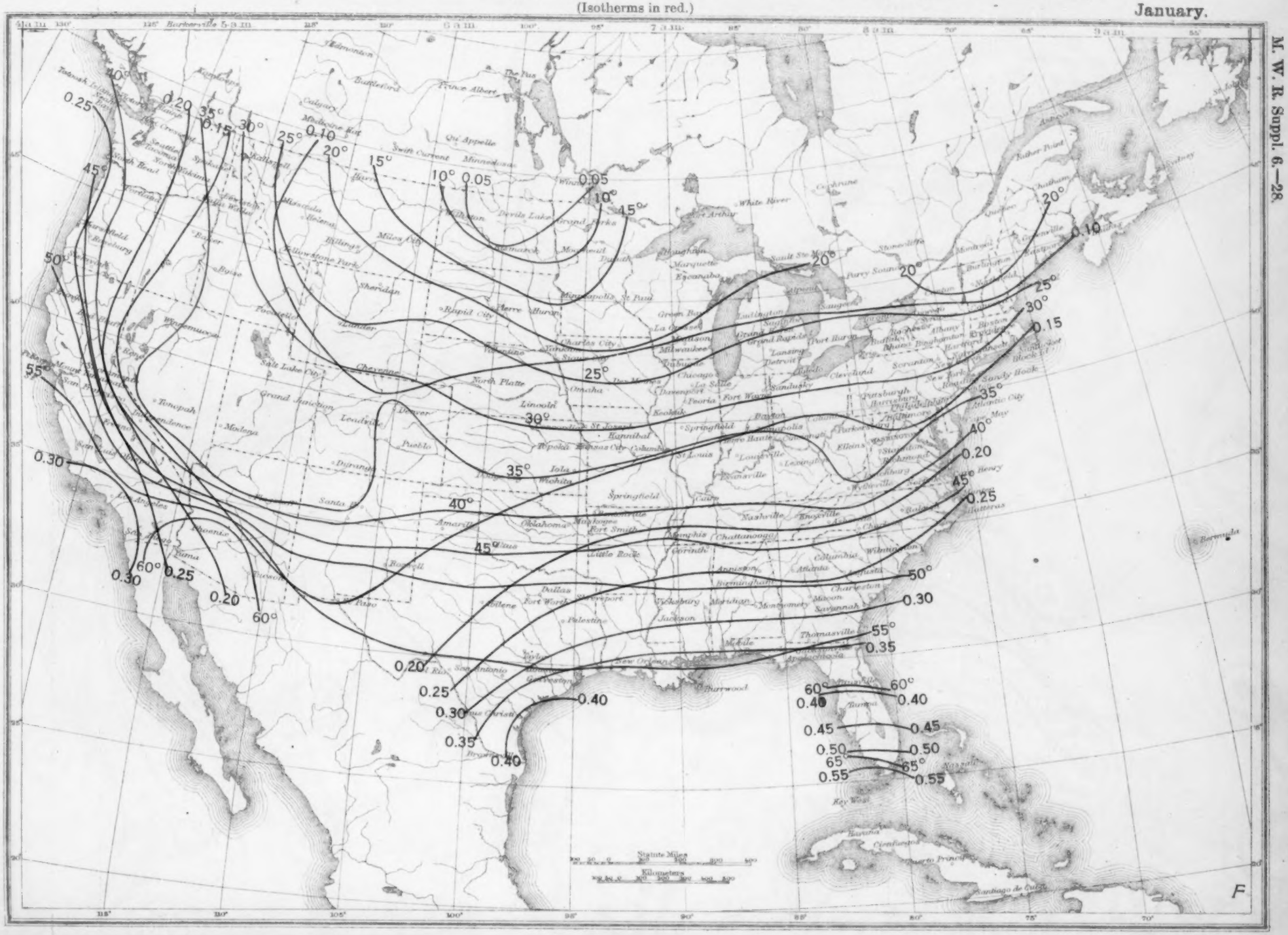
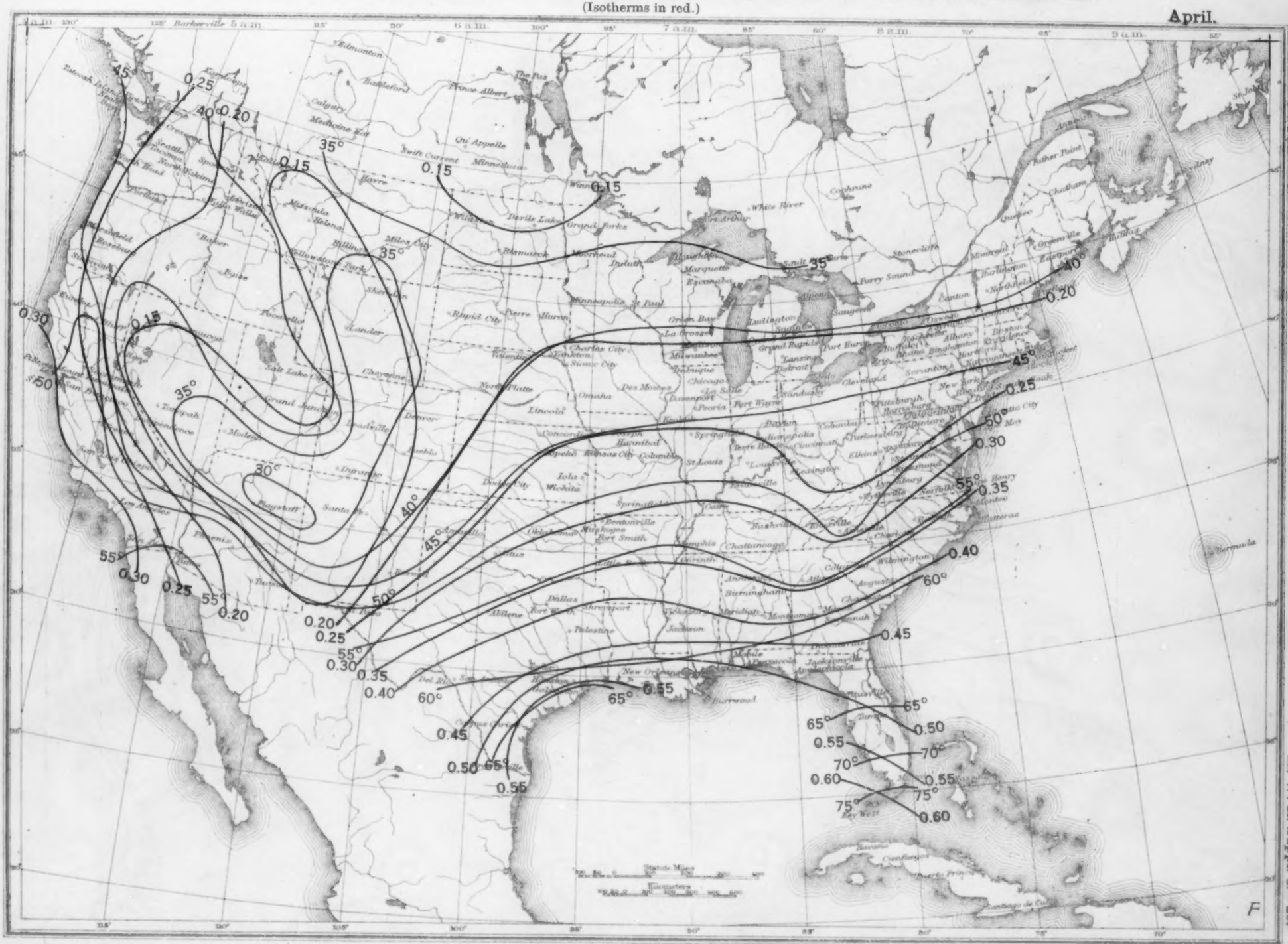


Chart 29.—The average vapor pressure (inches) and average temperature (°F) at 8 p. m., 75th meridian time.

Chart 29.—The average vapor pressure (inches) and average temperature (°F) at 8 a. m., 75th meridian time.

(Isotherms in red.)

April.



M. W. R. Suppl. 6.—29.

Chart 30.—The average vapor pressure (inches) and average temperature (°F) at 8 p. m., 75th meridian time.

(Isotherms in red.)

April.

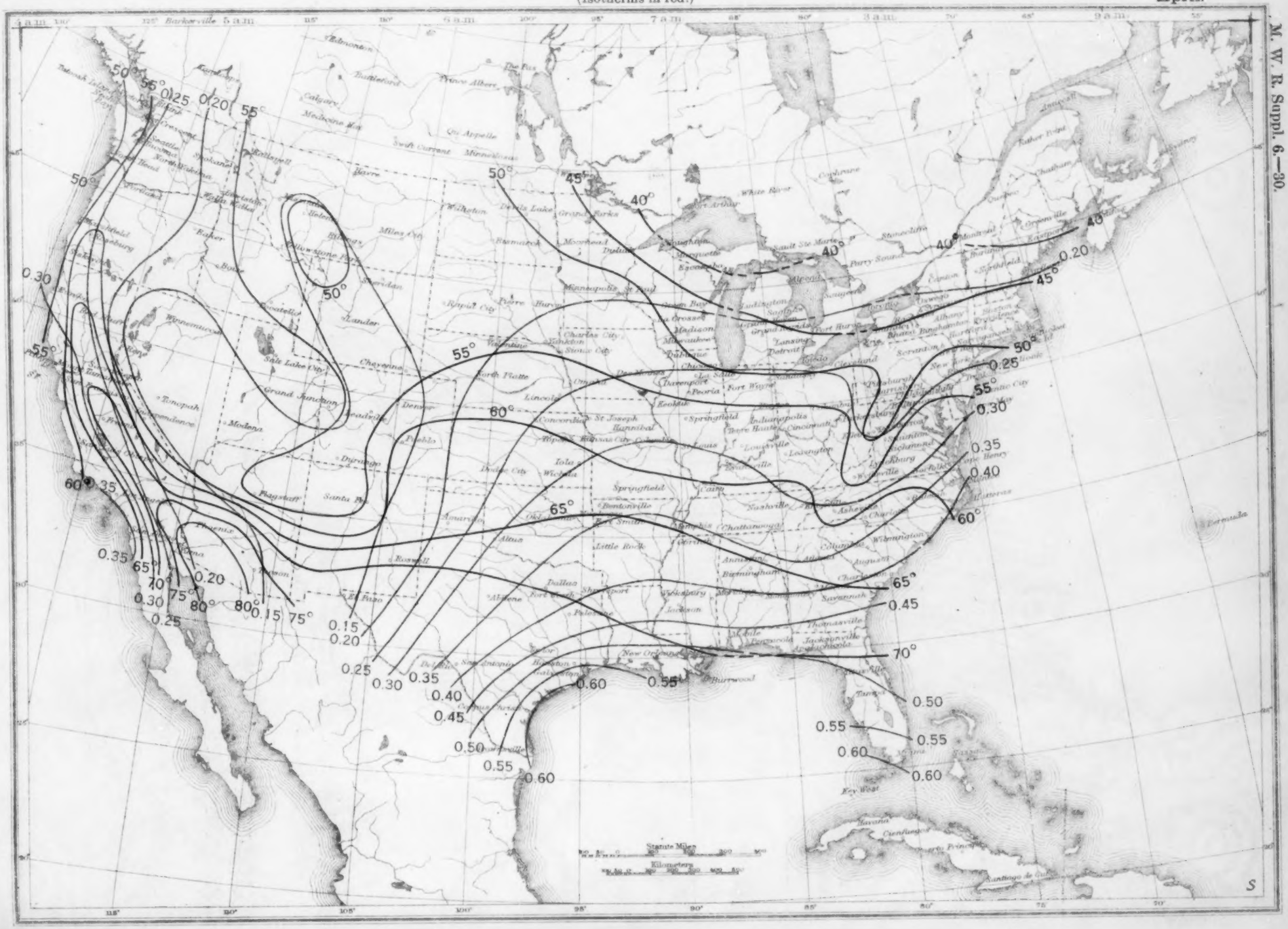
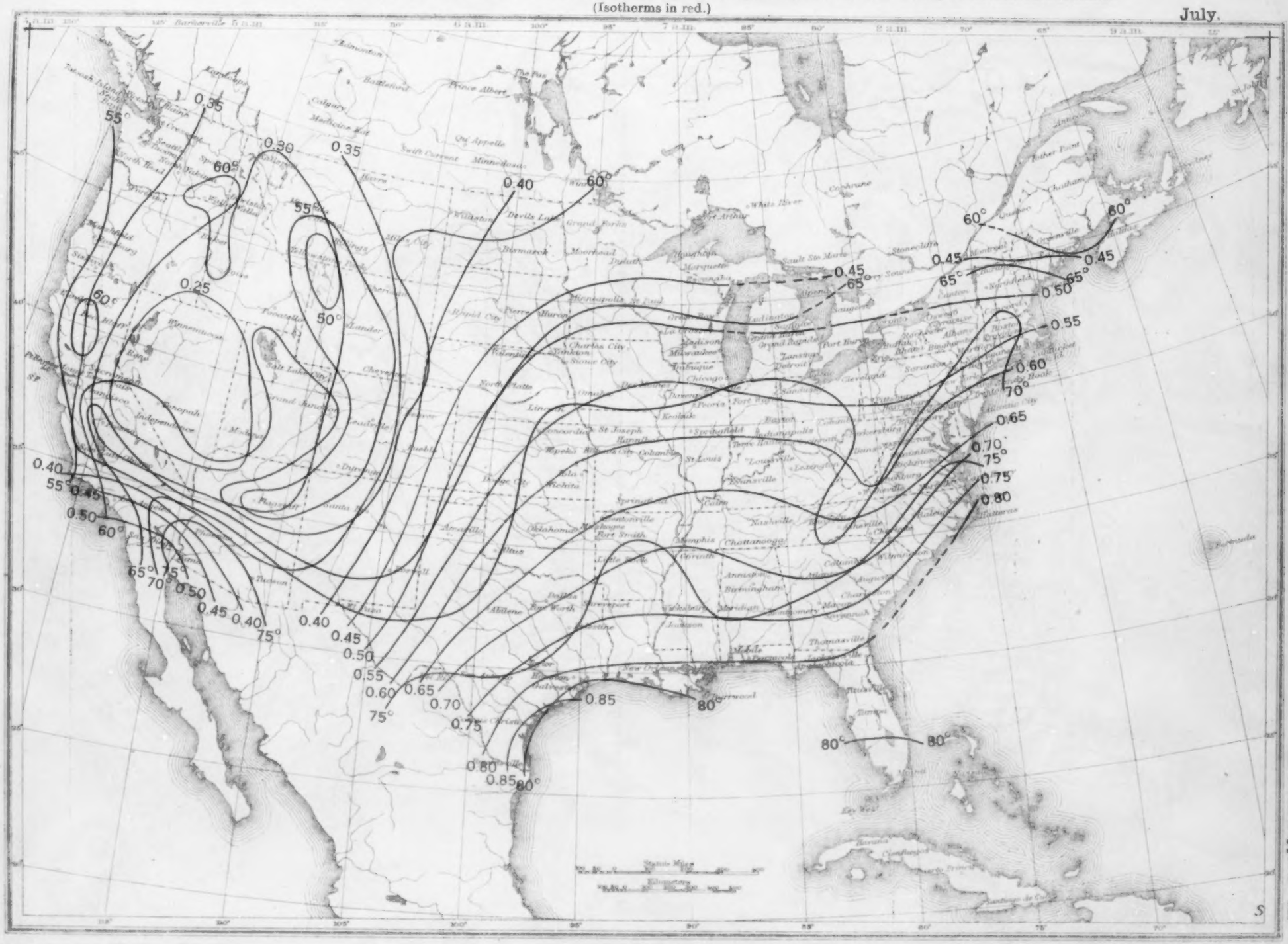


Chart 31.—The average vapor pressure (inches) and average temperature (°F) at 8 a. m., 75th meridian time.

(Isotherms in red.)

July.



M. W. R. Suppl. 6.—31.

Chart 32.—The average vapor pressure (inches) and average temperature (°F) at 8 p. m., 75th meridian time.

(Isotherms in red.)

July.

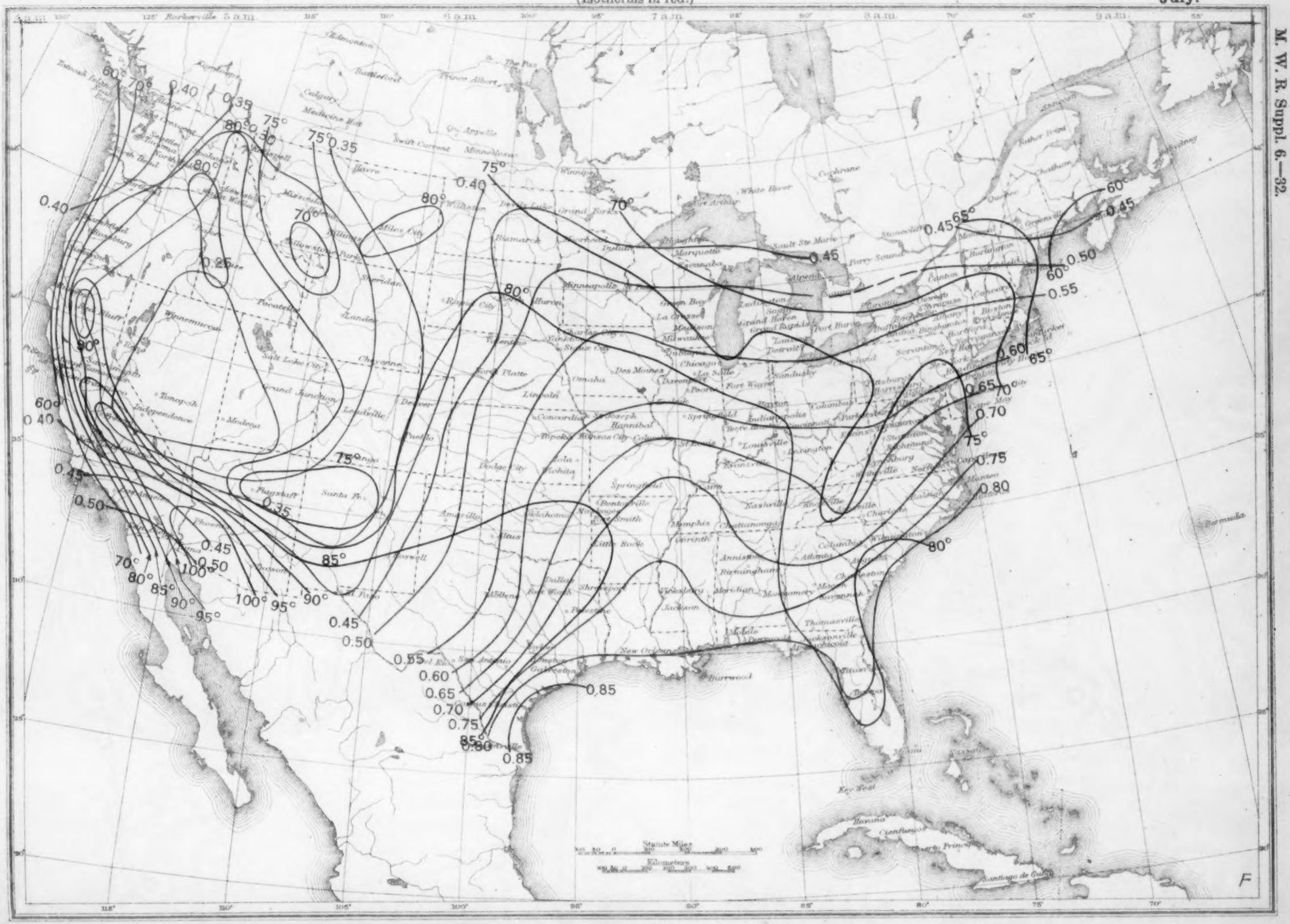


Chart 33.—The average vapor pressure (inches) and average temperature (°F) at 8 a. m., 75th meridian time.

(Isotherms in red.)

October.

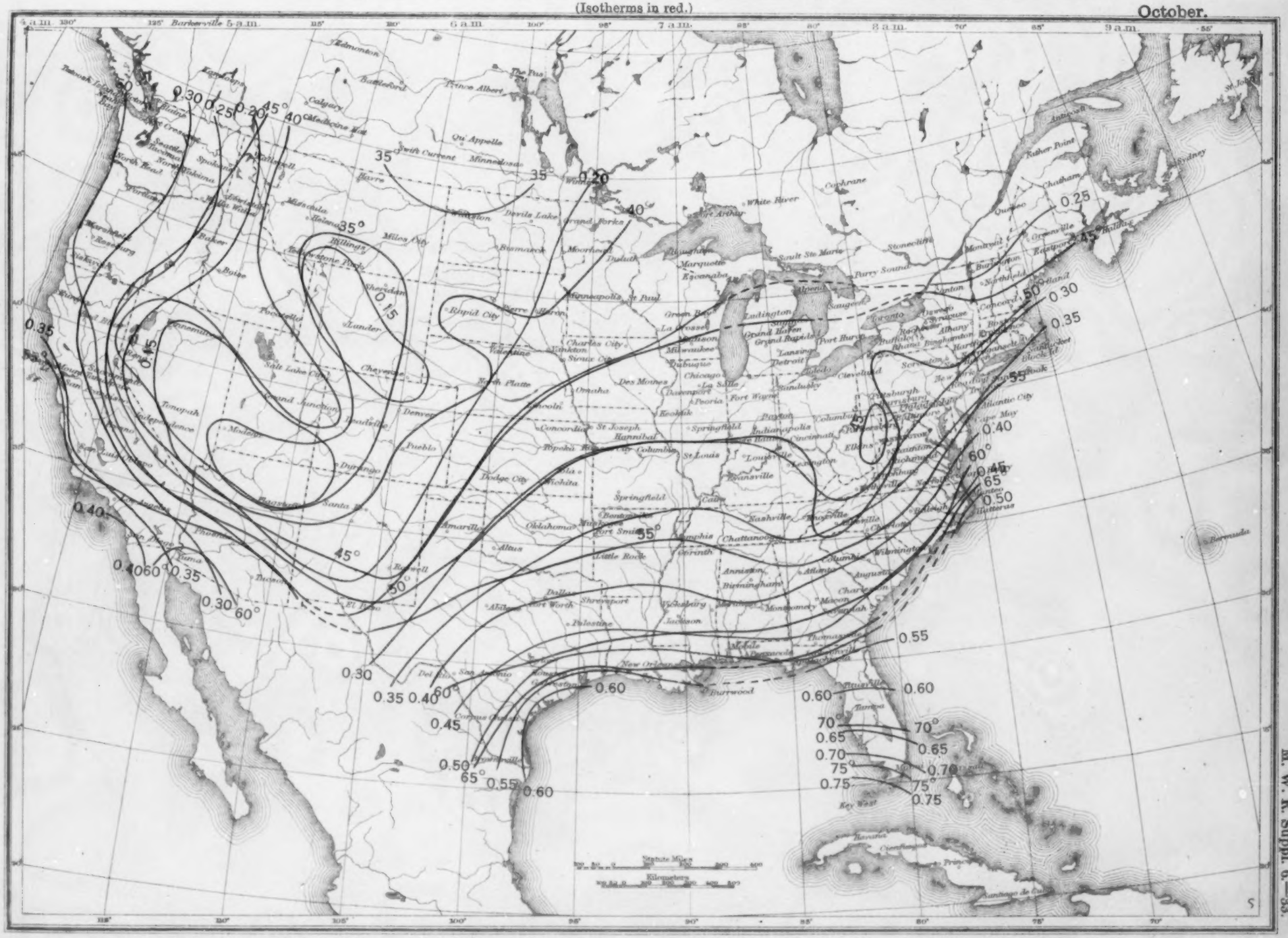
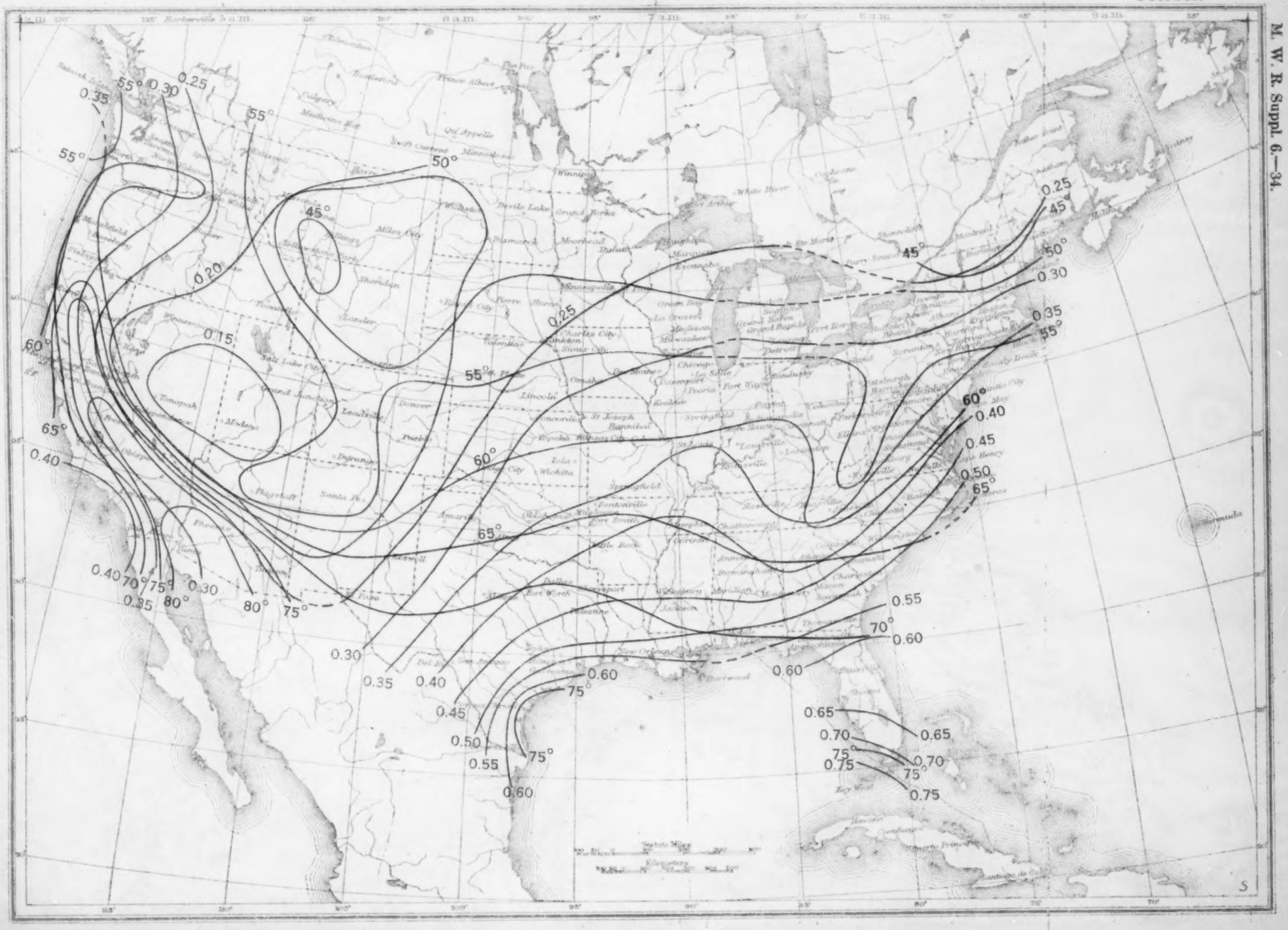


Chart 34.—The average vapor pressure (inches) and average temperature (°F) at 8 p. m., 75th meridian time.

(Isotherms in red.)

October.



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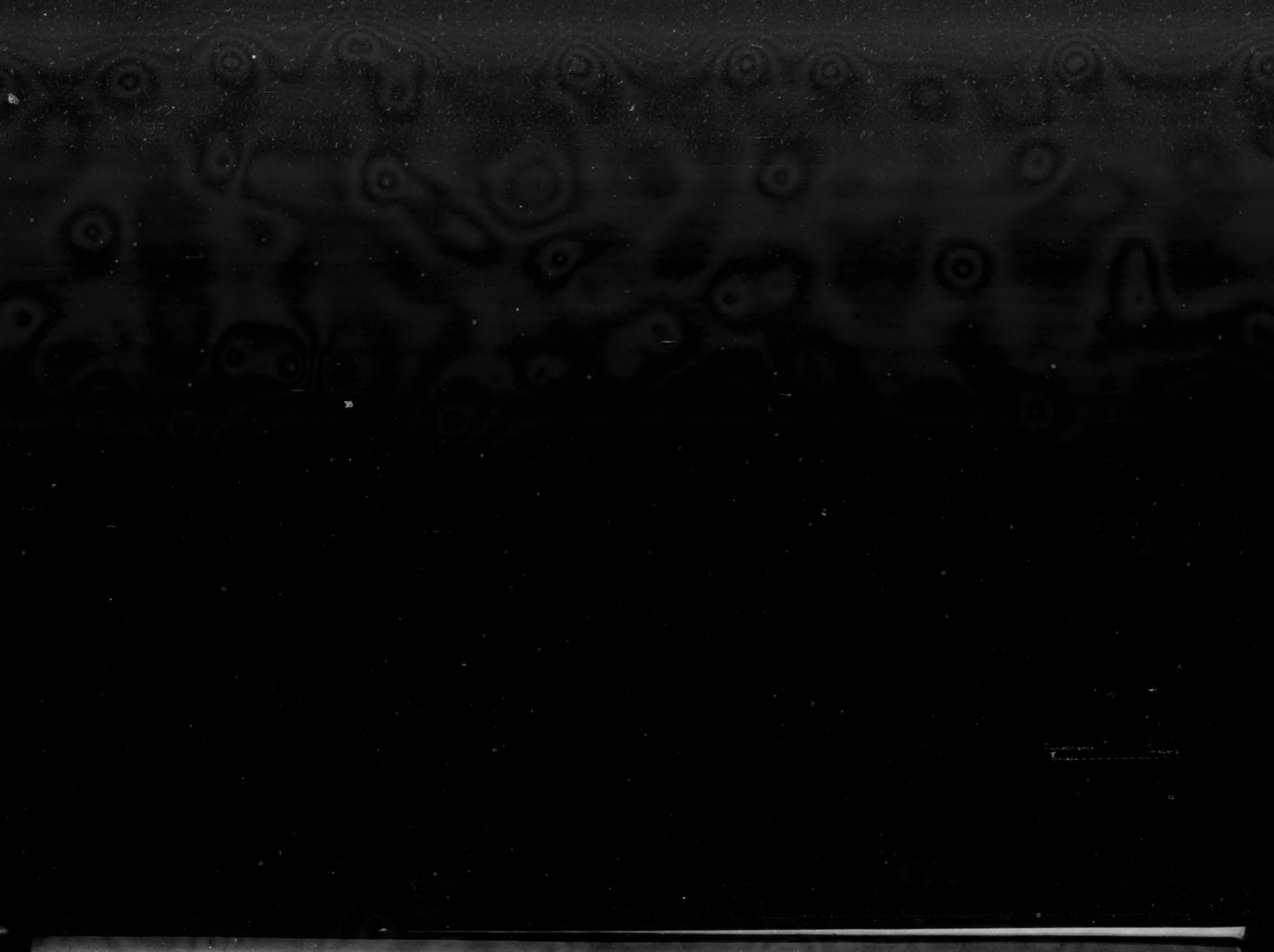
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